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Garry D. Jones
Director
Energy Efficiency

May 24, 2022

Ms. Jasmine Kirkland
Commission Filing Clerk
Public Utility Commission of Texas
1701 N. Congress Ave
P.O. Box 13326
Austin, TX 78711

RE: Project Number 52949 – CY 2022 Electric Utility Energy Efficiency Plan and Report Under
16 TAC § 25.181

Dear Ms. Kirkland,

On April 1, 2022, Oncor Electric Delivery Company LLC (Oncor) filed its 2022 Energy Efficiency Plan and Report (2022 EEPR). Since that filing, Oncor received the 2021 portfolio evaluation results from the Texas State Evaluator. Oncor agrees with the findings, and respectfully submits the Amended 2022 EEPR based on those results.

As a courtesy, a redline copy of the modified pages are included at the end of the enclosed Amended 2022 EEPR. If you have any questions, please contact me at 214-486-5350.

Sincerely,

A handwritten signature in black ink that reads "Garry Jones". The signature is fluid and cursive, with the first name "Garry" and last name "Jones" clearly distinguishable.

Garry D. Jones
Director, Energy Efficiency

**ONCOR ELECTRIC DELIVERY
COMPANY LLC**

**2022 ENERGY EFFICIENCY PLAN
AND REPORT**

16 TEX. ADMIN CODE (TAC) §25.181 AND §25.183

AMENDED MAY 24, 2022

Project No. 52949

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INTRODUCTION

Oncor Electric Delivery Company LLC (Oncor or Company) presents this Energy Efficiency Plan and Report (EEPR) to comply with Public Utility Commission of Texas (Commission) 16 TAC §25.181, §25.182 and §25.183 (the Energy Efficiency Rule or EE Rule), which implement Public Utility Regulatory Act (PURA) §39.905. PURA §39.905 and the EE Rule require that each investor-owned electric utility achieve the following minimum savings goals through market-based standard offer programs (SOPs), targeted Market Transformation Programs (MTPs), or utility self-delivered programs:

- Four-tenths of 1% to the summer weather-adjusted five-year average peak demand for eligible residential and commercial customers because the four-tenths of 1% trigger described in 16 TAC §25.181(e)(1)(B) was met by Oncor in 2019.

Effective, September 1, 2011, PURA §39.905 requires that an electric utility, whose amount of energy efficiency to be acquired is equivalent to at least four-tenths of one percent of its summer weather-adjusted peak demand for residential and commercial customers in the previous calendar year, maintain a goal of no less than four-tenths of one percent of that summer weather-adjusted peak demand for residential and commercial customers by December 31 of each subsequent year and that the energy efficiency to be required not be less than the preceding year.

The EE Rule includes specific requirements related to the implementation of SOPs and MTPs by investor-owned electric utilities that control the manner in which they must administer their portfolio of energy efficiency programs in order to achieve their mandated energy efficiency savings goals. Oncor's EEPR is intended to enable the Company to meet its statutory savings goals through implementation of energy efficiency programs in a manner that complies with PURA §39.905 and the EE Rule. As outlined in the EE Rule, this EEPR covers the previous five years of demand savings goals and energy targets, including 2021 achievements, and reports plans for achieving 2022 and 2023 projected energy efficiency savings. The following section provides a description of what information is contained in each of the subsequent sections and appendices.

ENERGY EFFICIENCY PLAN AND REPORT ORGANIZATION

This EEPR consists of the following information:

Executive Summary

- The Executive Summary highlights Oncor's reported achievements for 2021 and Oncor's plans for achieving its 2022 and 2023 projected energy efficiency savings.

Energy Efficiency Plan (EEP)

- Section I describes Oncor's program portfolio. It details how each program will be implemented, discusses related informational and outreach activities, and provides an introduction to any programs not included in Oncor's previous EEP.
- Section II explains Oncor's targeted customer classes, specifying the size of each class and the method for determining those sizes.
- Section III presents Oncor's projected energy efficiency savings goals for the prescribed planning period broken out by program for each customer class.

- Section IV describes Oncor’s proposed energy efficiency budgets for the prescribed planning period broken out by program for each customer class.

Energy Efficiency Report

- Section V documents Oncor’s actual weather-adjusted demand savings goals and energy targets for the previous five years (2017-2021).
- Section VI compares Oncor’s projected energy and demand savings to its reported and verified savings by program for calendar year 2021.
- Section VII details Oncor’s incentive and administration expenditures for the previous five years (2017-2021) broken out by program for each customer class.
- Section VIII compares Oncor’s actual and budgeted program costs from 2021 broken out by program for each customer class. It also explains any cost increases or decreases of more than 10 percent for Oncor’s overall program budget.
- Section IX describes the results from Oncor’s MTPs and Research & Development activities. It compares existing baselines and existing milestones with actual results, and details any updates to those baselines and milestones.
- Section X provides the revenue billed during 2021 through Oncor’s Energy Efficiency Cost Recovery Factor (EECRF) and describes any over- or under-recovery of energy efficiency costs.

Acronyms

- Abbreviations for a list of common terms.

Glossary

- Definitions for a list of common terms.

Appendices

- Appendix A – 2021 reported kW and kWh savings broken out by county for each program.
- Appendix B – Program templates for any new or newly-modified programs and any program not included in Oncor’s previous EEPRs.
- Appendix C – 2021 Energy Efficiency Service Providers.

EXECUTIVE SUMMARY

The Energy Efficiency Plan portion of this EEPR details Oncor's plans to achieve four-tenths of 1% of summer weather-adjusted five-year average peak demand for the combined residential and commercial customers for the 2022 program year and a similar reduction for the 2023 program year. Oncor will also address the corresponding energy savings goal, which is calculated from its demand savings goal using a 20% conservation load factor. The goals, budgets and implementation plans that are included in this EEPR are highly influenced by requirements of the EE Rule and lessons learned regarding energy efficiency service provider and customer participation in the various energy efficiency programs. A summary of annual goals and budgets is presented in Table 1.

The Energy Efficiency Report portion of this EEPR demonstrates that in 2021 Oncor successfully implemented SOPs and MTPs, as required by PURA §39.905, that met Oncor's 30% energy efficiency savings goal by procuring 209,884 kW in demand savings. These programs included the Home Energy Efficiency SOP, Hard-to-Reach SOP, Targeted Weatherization Low-Income SOP, Residential Solar Photovoltaic Installation SOP, New Homes Construction MTP, Residential Load Management SOP, Commercial Solar Photovoltaic Installation SOP, Small Business Direct Install MTP, Commercial SOP, Commercial Load Management SOP, Retro-commissioning MTP, Retail Products MTP, and the Commercial HVAC Distributor MTP Program.

Table 1: Summary of Goals, Projected Savings, and Projected Budgets¹

Calendar Year	Average Growth in Demand (MW at Source)	MW Goal (% of Growth in Demand)	Demand (MW) Goal (at Meter) based on 30% Reduction)*	Energy MWh Goal (at Meter) based on 30% Demand Goal***	Demand Goal (MW) at 0.4% of Peak Demand (at meter)**	Energy MWh Goal at 0.4% of Peak Demand (at Meter)***	Projected MW Savings (at Meter)	Projected MWh Savings (at Meter)	Projected Budget (000's)
2022	129.0	30%	36.5	63,948	95.1	166,615	201.2	253,599	\$50,414 ²
2023	478.8	30%	135.8	237,922	97.0	169,944	215.9	291,195	\$52,406

* The 2022 and 2023 Demand Goal are calculated per the EE Rule that requires a 30% reduction in the five-year average of annual demand growth and are shown for reference only.

** The 2022 and 2023 Demand Goals are calculated according to 16 TAC §25.181(e)(3)(B) because the four-tenths of 1% trigger described in 16 TAC §25.181(e)(1)(B) was met in 2019. The 2022 Demand Goal is calculated by applying the four-tenths of 1% goal to the summer weather-adjusted five-year average peak demand for eligible residential and commercial customers (25,167 MW x 0.4% x (1 - .05561 line loss)). The 2023 Demand Goal is calculated by applying the four-tenths of 1% goal to the summer weather-adjusted five-year average peak demand for eligible residential and commercial customers (25,646.2 MW x 0.4% x (1 - .05444 line loss)). Line loss is the 5-year weighted average of the actual loss factors at the time of Oncor's annual peaks.

*** Calculated using a 20% conservation load factor.

In order to reach the above projected savings, Oncor proposes to continue implementation of the 2021 programs listed above and add the Strategic Energy Management MTP and Winter Commercial Load Management SOP in 2022.

Oncor programs target both broad market segments and specific market sub-segments that offer significant opportunities for cost-effective savings. Oncor plans to conduct ongoing informational

¹ Projected MW and MWh taken from Table 5 in this document. Budget data is taken from Table 6 in this document.

² Projected budget reflect the amount approved in Project No. 52178 – ordering paragraph no. 2.

activities to encourage participation in these SOPs and MTPs. Oncor identifies specific markets for each of its programs, and tailors communications and outreach to the customers and service providers serving the market. At a minimum this will include a program website, brochures, and an introductory meeting to explain the program prior to the program start-date. Furthermore, Oncor plans to participate in conferences to provide information related to its Energy Efficiency Programs.

Oncor is continuing its effort to increase Retail Electric Provider (REP) participation in the energy efficiency programs it manages. This plan involves multiple activities and approaches that will reflect Oncor's commitment to this effort. This plan includes, but is not limited to, the following activities:

- Invite REPs to program outreach meetings with Energy Efficiency Service Providers.
- Coordinated effort with Oncor's REP Relations group to identify key REP contacts. Through REP Executive visits, Oncor will conduct energy efficiency discussions while sharing related program information and materials during these visits.
- Make contact with individual REPs at local, regional, and national conferences, trade shows and/or events as the opportunity is available.
- Coordination with REP relations group to provide information and awareness of new energy efficiency programs.

All Oncor programs are offered on a first-come, first-served basis.

ENERGY EFFICIENCY PLAN

I. 2022 Programs

A. 2022 Program Portfolio

Oncor plans to implement 14 market transformation and standard offer programs that are based upon Commission-approved program templates. One program, the Targeted Weatherization Low-Income SOP, is required by Senate Bill 712, which was passed by the Texas Legislature in 2005. Additional requirements were passed by the Texas Legislature in 2011. Senate Bill 1434 requires that annual expenditures for the Targeted Weatherization Low-Income SOP are not less than 10 percent of the utility's energy efficiency budget for the year.

As discussed below, the Company's programs target both broad market segments and specific market sub-segments that offer significant opportunities for cost-effective savings. Oncor anticipates that outreach to a broad range of service provider types will be necessary in order to meet the savings goals required by PURA §39.905 and the EE Rule on a continuing basis. Table 2 summarizes the programs and target markets.

Table 2: 2022 Energy Efficiency Program Portfolio

Program	Target Market	Application
Commercial SOP	Commercial	Retrofit; New Construction
Hard-to-Reach SOP	Hard-to-Reach Residential	Retrofit
Commercial Load Management SOP	Large Commercial	Load Management
Small Business Direct Install MTP	Small Commercial	Retrofit
Home Energy Efficiency SOP	Residential	Retrofit
Targeted Weatherization Low-Income SOP	Low-Income Residential	Retrofit
Commercial Solar Photovoltaic Installation SOP	Commercial	New Construction
Residential Solar Photovoltaic Installation SOP	Residential	New Construction
Residential Load Management SOP	Residential	Load Management
Retail Products MTP	Residential; Commercial	Retrofit; New Construction
Commercial Midstream MTP	Commercial	Retrofit; New Construction
Residential New Home Construction MTP	Residential	New Construction

Strategic Energy Management MTP (Pilot)	Large Commercial	Retrofit
Winter Commercial Load Management SOP (Pilot)	Commercial	Load Management

The programs listed in Table 2 are described in further detail below. Oncor maintains a website containing links to the program manuals of the SOPs, all of the requirements for project participation, the forms required for project submission, and the current available funding at <https://eepm.oncor.com/>. This website will be the primary method of communication used to provide potential Energy Efficiency Service Providers with program updates and information. Additional information to help residential consumers, business owners and government and educational facilities with their energy efficiency efforts can be found at <https://www.oncor.com/takealoadofftexas/>. This website also includes information on how to submit an idea or proposal to Oncor for the technology incubator, including information on future opportunities to bid to be an implementer of an Oncor Market Transformation Program.

B. Existing Programs

Commercial Standard Offer Program (CSOP)

The Commercial SOP targets commercial customers with new or retrofit projects that either require measurement and verification or use deemed savings. Oncor provides incentives to Energy Efficiency Service Providers (Service Provider) who install approved energy efficiency measures in business, government, nonprofit, and worship facilities in Oncor's service area. These include, but are not limited to, lighting, motors, variable frequency drives, ENERGY STAR® roofs and food service equipment, refrigeration measures as well as new construction that exceeds existing energy code baselines per the Texas Technical Reference Manual (Texas TRM). These energy-saving projects must be approved by Oncor prior to project start. Once completed, Oncor verifies the savings and the Service Providers receive incentive payments based on the project's actual savings. Also included is the replacement of existing HVAC units using early replacement in master metered multifamily apartment complexes with high efficiency heat pumps.

Program Design Update

In 2022, CSOP will introduce additional measures into the program to include high efficiency data center air conditioning, premium efficiency motors, ENERGY STAR® commercial ice makers, ENERGY STAR® pool pumps, vending machine controls, lodging guest room occupancy sensors, condenser air evaporative pre-cooling and demand controlled kitchen ventilation.

Home Energy Efficiency Standard Offer Program (HEE SOP)

The HEE SOP targets residential customers with existing homes. This program is designed to achieve energy and demand savings in the residential market with the installation of a wide range of energy-efficiency measures in homes and multi-family residences. Incentives are paid to Service Providers to help offset the cost of these energy efficiency measures. Oncor provides the incentive directly to the Service Provider. Incentives to customers vary by Service Provider and no incentives for this program are paid directly to the customer by Oncor. Eligible energy-efficient measures include replacement of air conditioning units, heat pumps, and attic insulation. Also included is the replacement of existing HVAC units using early replacement in multifamily apartment complexes with high efficiency heat pumps.

Program Design Update

There are no planned major updates to the program in 2022.

Hard-to-Reach Standard Offer Program (HTR SOP)

The HTR SOP targets residences with household incomes at or below 200% of the federal poverty guidelines. This program is designed to achieve energy and demand savings with the installation of a wide range of energy-efficiency measures. Service Providers implement energy saving projects in homes located in Oncor's service area. Incentives are paid to the Service Providers to help offset the cost of the energy efficiency measures. Common measures, such as insulation and caulking/weather-stripping are installed at low or no cost to the customer. Service Providers must test for air leakage before and after installation when installing caulking/weather-stripping measures. Oncor provides the incentive directly to the Service Provider. Qualifying measures are similar to those described above for the HEE SOP, as well as air infiltration. Also included is the replacement of existing HVAC units using early replacement in multifamily apartment complexes with high efficiency heat pumps. The same income qualifications (household incomes at or below 200% of current federal poverty level guidelines) apply to the multifamily apartment program option.

Program Design Update

In 2022, HTR SOP will provide incentives for HVAC equipment starting at 14 SEER and will include smart thermostats as part of the program offerings. In 2022, Oncor began a customer eligibility qualification process as required in the Texas TRM through a third party website designed by Texas Poverty Research Institute (TEPRI).

Commercial Load Management Standard Offer Program (CLM SOP)

Oncor pays incentives to Service Providers and Aggregators who work with local commercial and manufacturing facilities to achieve documented summer, on-peak demand reductions in those facilities. End-use customers may also act as the Service Provider. The program is designed to assist businesses reduce their summer on-peak energy demand and help meet the state's energy efficiency goals. The demand reductions must be verified by Oncor in order for the incentives to be paid. This is accomplished by reviewing data recorded by meters and calculating the amount of demand savings achieved through "curtailment" during the summer on-peak season. The incentive is paid directly to the Service Provider, Aggregator or End-Use Customer. Each project must achieve a total estimated demand savings of at least 100 kW during the summer on-peak demand period. Participating customer facilities must reduce load when called for by Oncor.

Program Design Update

There are no planned major updates to the program in 2022.

Commercial Solar Photovoltaic Installation Standard Offer Program (CSPV SOP)

The CSPV SOP provides incentives for the installation of Solar Photovoltaic systems that reduce customer energy costs, reduce peak demand and save energy in existing commercial customer structures. Incentives are paid to Service Providers based on savings calculation detailed in the Texas TRM for Solar Photovoltaic systems.

Program Design Update

There are no planned major updates to the program in 2022.

Residential Solar Photovoltaic Installation Standard Offer Program (RSPV SOP)

The RSPV SOP provides incentives for the installation of Solar Photovoltaic systems that reduce customer energy costs, reduce peak demand and save energy in existing residential customer structures. Incentives are paid to Service Providers based on savings calculation detailed in the Texas TRM for Solar Photovoltaic systems.

Program Design Update

In 2022, only energy efficiency projects that have battery storage included with the solar installation will be eligible for incentives.

Small Business Direct Install MTP (SBDI MTP)

Oncor's Small Business Direct Install MTP is a market transformation program designed to address the specific needs of the small business market. The program pays incentives up to the cost of the qualifying projects. Additionally, it provides the contractors with the tools needed to engage and educate the small business market on energy efficiency technologies, equip participating contractors with the tools they need to succeed in installing projects in the small business market, and offer incentives to assist small (≤ 200 kW) and very small (≤ 10 kW) businesses to install energy-efficient products such as high efficiency lighting and refrigeration measures. The program is focused on the non-Metro counties served by Oncor.

Program Design Update

In 2021, Oncor ran a Request for Proposal (RFP) and awarded a new implementation contract for the SBDI MTP program. During 2022, the implementation contractor will utilize service providers strategically located in the non-Metro counties to ensure that energy efficiency incentives are properly allocated within the Oncor service territory.

Targeted Low-Income Weatherization SOP (TLIW SOP)

The TLIW SOP program is designed to meet the program requirements outlined in PURA §39.905 and TAC §25.181 by working with community action agencies and program implementers. The TLIW SOP program complies with the same audit requirements that apply to federal weatherization sub recipients. Oncor is implementing TLIW SOP through the Texas Association of Community Action Agencies (TACAA) who provide funds to designated federal Weather Assistance Program (WAP) sub recipient agencies enabling them to provide weatherization services to residential electric distribution customers of Oncor who have household incomes at or below 200% of current federal poverty level guidelines.

Energy efficiency measures installed include aerators, ceiling insulation, air infiltration, central air conditioning units, central heat pumps, floor insulation, ENERGY STAR® refrigerators, dishwashers, clothes washers and windows, showerheads, window air conditioning units, wall insulation, water heater jackets and water heater pipe insulation.

TLIW SOP also includes the replacement of HVAC units in multifamily apartment complexes with high efficiency heat pumps. The same income qualification (incomes at or below 200% of the current federal poverty level guidelines) apply to this program option.

Program Design Update

There are no planned major updates to the program in 2022.

Residential Load Management SOP (RLM SOP)

Oncor's RLM SOP provide incentives to participating Service Providers for reducing peak electric demand at residential premises. In 2022, the program will engage Service Providers to provide demand response capability using remotely controlled load control devices in homes. The Service Providers will use various control strategies, such as pre-cooling and cycling to reduce overall demand during the peak period. Implementation will occur in the Oncor service territory and target residential homes. The participating providers are responsible for ensuring the presence of load control devices in participating residences. The actual demand savings will be determined by Oncor using advanced meter data.

Program Design Update

There are no planned major updates to the program in 2022.

Retail Products MTP (RPMTP)

The RPMTP provides incentives directly to Residential Customers through in-store point of sale discounts for the purchase of qualifying ENERGY STAR-rated LED lighting products and ENERGY STAR® qualified smart thermostats. The Program is partnership-based and delivers qualified product measures by contracting with major market manufacturers and through cooperation with their retail alliance partners. Based on the Texas TRM recommendation, claimed savings will be attributed based on five percent of upstream lighting program benefits and costs allocated to commercial customers with the remaining 95 percent allocated to residential customers. Commercial savings are calculated using the 'office' building type for lighting per guidelines in the Texas TRM.

In November 2018 select ENERGY STAR rated Nest and Ecobee smart thermostats were made available as part of this program, giving customers the ability to monitor and adjust their home's temperature even when away from home. In addition, Honeywell, Emerson and Amazon thermostat products have been added to Smart Thermostat options to increase the product mix to Oncor customers. Oncor customers can obtain a coupon to purchase a smart thermostat by visiting www.smartsavingstx.com.

Program Design Update

In 2022, RPMTP will introduce additional measures into the program to include advanced power strips, ENERGY STAR® air purifiers, and ENERGY STAR® room air conditioners.

Residential New Home Construction MTP (RNHC MTP)

Oncor implemented RNHC MTP in 2021 and awarded the program to an implementation contractor in July 2021. This program is a market transformation program designed to provide builders and Home Energy Raters incentives for residential new homes to include energy efficient measures in the construction and build of the new home in order to reduce the overall energy usage and improve the efficiency of equipment and systems.

Program Design Update

There are no planned major updates to the program in 2022.

Commercial Midstream MTP (CM MTP)

The CM MTP formerly known as Commercial HVAC Distributor MTP is a market transformation program designed to provide incentives to air conditioning distributors who agree to facilitate the installation of high-efficiency air conditioners and heat pumps in commercial facilities. The program will utilize the midstream, distributor-focused model which is designed to provide incentives to the manufacturers and distributors of equipment and reaches down the entire supply chain to ensure incentives engage service providers and customers. CM MTP will continue to analyze measures that will fit in the midstream distributor focused model and will incorporate those measures in the program.

Program Design Update

There are no planned major updates to the program in 2022.

Research and Development

In 2021, Oncor engaged a third-party consultant to conduct an emerging technologies study and analysis with the goal of identifying and testing new energy efficiency technologies and program deliveries for potential submission and inclusion in the Texas TRM. The emerging technologies study reviewed over 300 technologies for analysis. In 2022, Oncor will continue the study and development of the new technology incubator with the goal of building a pipeline of new technologies for review and analysis. The purpose of the incubator is to identify and test new energy efficient technologies, program strategy and ideas for inclusion in the Oncor Energy Efficiency portfolio. Promising technologies will be evaluated by third party consultants and may also be submitted to the State for inclusion in the Texas TRM. In addition, Oncor launched an Ideas Submission Portal in the Oncor Take a Load Off Texas website to allow individuals and organizations with promising ideas to submit to Oncor for review. Additional potential studies under analysis and review include the Small Commercial Smart Thermostat Pilot, an incentive optimization study, and an emerging technologies assessment study.

Additionally, Oncor will continue its membership with TEPRI for 2022. TEPRI is a 501(c)(3) whose mission is to research the root causes of energy and fuel poverty and provide data for solutions that have an impact on low-income households. In 2022, TEPRI will continue compiling Best Practices of Low-Income Services, Programs, and Technologies. TEPRI will continue to conduct a research study to investigate and develop recommendations for the revised program eligibility verification approaches for low-income and hard-to-reach energy efficiency program. Additionally, TEPRI will update their portal of information on publications, websites, and other resources that are specific to the topic of energy and poverty in Texas and the nation.

Oncor will continue to fund studies to evaluate energy efficiency market attributes, new technologies, and new program ideas. The studies will be conducted by third party consultants and will address Oncor specific portfolio needs, and as well as Texas market issues and opportunities.

C. New Programs for 2022

Strategic Energy Management MTP Pilot (SEM MTP)

The SEM MTP uses a custom fit and energy concierge approach to identify deep energy savings for Large Commercial, and Agricultural customers. It enlists a relationship building approach with the customer to ensure that their specific needs and opportunities are addressed. The SEM MTP program

investigates the customer's current operations and system parameters to identify opportunities for improvement. The implementer and customer develops an annual Action Plan based on identified projects and the program provides on-going coaching to support the implementation of the Action Plan measures. A key aspect of the SEM MTP approach is to uncover and influence the implementation of operational efficiency measures in addition to capital efficiency measures. These operational efficiency measures are similar to those covered in a retro-commissioning program. The program template for SEM MTP is included in Appendix B.

Winter Commercial Load Management Pilot (WCLM SOP)

The WLM SOP provides incentives to program participants for curtailing electricity demand in the winter season when requested by ERCOT, and during ERCOT emergencies. Program participants include commercial customers, retail electric providers (REPs), and commercial aggregation groups. WELM MTP will operate December 1 of the prior program year through the last day in February of the current program year. Participants must be available to curtail 24 hours a day, seven days a week, and be capable of curtailing load within 30 minutes notice. The minimum load reduction that may be subscribed in the Program is 100 kW.

Program savings are determined using the load management calculations in the Texas TRM. A baseline load management test will be conducted to demonstrate that the participant is capable of curtailing load, and to establish the baseline demand reduction. The contracted demand reduction will be based on the load management test result, available program budget, and program goals. Participants must curtail a minimum of 90% of their contracted demand reduction across all events to be eligible for payment. Final program payments are determined by established program rules and TRM calculations.

The program template for WCLM SOP is included in Appendix B as submitted in Project No. 38578.

D. New Programs for 2023

Low-Income Air Conditioning Tune-up (LIACTU) Pilot MTP

The LIACTU Pilot MTP is designed to overcome market barriers that prevent low income residential customers from receiving high performance air-conditioning system tune-ups. The program offers system tune-ups to low-income qualified customers at little to no additional cost to the customer to help alleviate the energy burden that most low income customers face during the summer months.

The program is designed to work through local networks to offer key program components, including:

- Training and certifying technicians on the tune-up and air flow correction services and protocols.
- Paying incentives to contactors for the successful implementation of tune-up and air flow correction services.

The program template for LIACTU Pilot MTP is included in Appendix B.

II. Customer Classes

Customer classes targeted by Oncor's energy efficiency programs are the Hard-to-Reach, Residential, and Commercial customer classes. The annual demand goal will be allocated to customer classes by examining historical program results, evaluating economic trends, and complying with 16 TAC §25.181(e)(3)(F), which states that no less than 5% of the utility's total demand reduction savings goal should be achieved through programs for hard-to-reach customers. Also factored into the allocation is the PURA §39.905 requirement that annual expenditures for the targeted low-income energy efficiency programs are not less than 10 percent of the annual energy efficiency budget for the year. Table 3 summarizes the number of customers in each of the customer classes, which was used to determine budget allocations for those classes. Oncor used year-end 2021 Customer Information System (CC&B) premise-level data to estimate the number of customers in each class. The Hard-to-Reach class was estimated by multiplying the total number of residential customers by 26.1%. According to the U.S. Census Bureau's 2021 Current Population Survey (CPS), 26.1% of Texas families fall below 200% of the poverty threshold (2020 CPS was 23.8%).³ Applying that percentage to Oncor's residential customer totals, the number of HTR customers is estimated at 850,412 compared to 761,158 in 2020. This calculation is only an estimate. Oncor does not have access to its residential customers' income levels. The actual percentage may be higher or lower.

It should be noted, however, that the actual distribution of the goal and budget must remain flexible based upon the response of the marketplace, the potential interest that a customer class may have toward a specific program and the overriding objective of meeting the legislative goal. Oncor will offer a portfolio of Standard Offer and Market Transformation Programs that will be available to all customer classes.

Table 3: Summary of Customer Classes

Program	Number of Customers
Commercial*	507,181
Residential	2,407,871
Hard-to-Reach	850,412
Total	3,765,464

*Customer count takes into account 11,245 qualifying for-profit industrial customers who have elected to exclude themselves from participation in Oncor's energy efficiency programs per 16 TAC 25.181 (u).

III. Projected Energy Efficiency Savings and Goals

As prescribed by 16 TAC §25.181, Oncor's demand goal is specified as four-tenths of 1% of the summer weather-adjusted five-year average peak demand for eligible residential and commercial customers. The four-tenths of 1% trigger described in TAC §25.181(e)(1)(B) was met in 2019, the demand goal for 2022 and 2023 is calculated according to TAC §25.181(e)(3)(B), applying the four-tenths of 1% goal to the weather-adjusted five-year average peak demand for eligible residential and commercial customers. The corresponding energy savings goals are determined by applying a 20% conservation load factor to the applicable demand savings goals.

³ US Census Bureau, Current Population Survey, 2021. Below 200% of Poverty – Primary Families – Texas. <https://www.census.gov/data/tables/time-series/demo/income-poverty/cps-pov/pov-46.html>

Table 4 presents historical annual growth in demand for the previous five years. Total System numbers include all customers (including transmission voltage and qualifying for-profit industrial customers who elected to exclude themselves from participation in Oncor’s energy efficiency programs). While Residential and Commercial totals include eligible residential and non-residential customers taking delivery at a distribution voltage and non-profit customers and government entities, including educational institutions. Table 5 presents the projected demand and energy savings broken out by program for each customer class for 2022 and 2023. The program-level goals presented in Table 5 are at the meter and take into account transmission and distribution line losses.

Table 4: Annual Growth in Demand and Energy Consumption *

Calendar Year	Peak Demand (MW) (at Source) **					Energy Consumption (MWh) (at Meter)				Eligible Residential & Commercial			
	Total System		Opt-Out	Eligible Residential & Commercial		Total System		Eligible Residential & Commercial		Growth (MW)	Avg 5 Yr (MW) Growth	30% of 5-Yr Avg Growth***	0.4% of 5-Yr Avg Peak Demand***
	Actual	Actual Weather Adjusted ⁴	Secondary / Primary, & Transmission Voltage***	Actual	Actual Weather Adjusted ⁴	Actual	Actual Weather Adjusted ³	Actual	Actual Weather Adjusted ⁴	Actual Weather Adjusted ⁴	Actual Weather Adjusted ⁴	Actual Weather Adjusted ⁴	Actual Weather Adjusted ⁴
2016	25,766	26,598	1,755	24,010	24,843	115,791,379	117,927,439	100,977,674	103,113,734				
2017	25,148	26,245	1,879	23,269	24,366	117,017,075	119,776,460	100,971,312	103,730,697	(476.9)			
2018	27,471	27,201	2,055	25,415	25,145	130,007,690	128,631,337	111,336,170	109,959,816	779.3			
2019	27,174	28,733	2,408	24,767	26,326	133,357,452	133,307,591	112,552,481	112,502,621	1,180.3			
2020	27,133	28,089	2,932	24,201	25,157	130,279,888	134,416,838	105,774,456	109,911,405	(1,168.2)			
2021	26,740	30,146	2,909	23,831	27,237	135,522,388	137,888,482	108,312,829	110,678,923	2,079.7	478.8	135.8	97.0
2022⁵	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2023⁵	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

5-yr Average of Actual Weather Adjusted Eligible Residential and Commercial (Peak Demand MW) (At Source): **25,646.2** (Average of 24,366, 25,145, 26,326, 25,157 and 27,237)

* Table 4 values can differ from prior years due to restatement of historic demands from ERCOT Settlement interval data. Additional variance is due to changing the weather adjustment process to better match the ERCOT Settlement method. Values may not add due to rounding.

** Peak Demand values have been revised to reflect the combined Oncor and former Sharyland MW values for 2016-2017.

*** Includes the peak demand of qualifying for-profit industrial customers who receive service at primary/secondary voltage and have elected to exclude themselves from participation in Oncor's energy efficiency programs in the following amounts: Year 2016 – 429 MW, Year 2017 – 486 MW, Year 2018 – 539 MW, Year 2019 – 524 MW, Year 2020 – 782 MW and Year 2021 - 887 MW.

****Reflects line loss of 5.444%

⁴ “Actual Weather Adjusted” Peak Demand and “Energy Consumption” are adjusted for weather fluctuations using weather data for the most recent ten years.

⁵ “NA” = Not Applicable. Energy efficiency goals are calculated based upon the actual weather-adjusted growth in demand; so peak demand and energy consumption forecasts for 2022 and 2023 are not applicable.

Table 5: Projected Demand and Energy Savings Broken Out by Program for Each Customer Class (at Meter)

	2022 Projected Savings		2023 Projected Savings	
Customer Class and Program	(kW)	(kWh)	(kW)	(kWh)
Commercial	122,023	118,820,600	121,656	121,379,519
Commercial SOP	12,585	64,793,888	14,523	72,827,590
Commercial Load Management SOP	65,000	195,000	60,000	180,000
Small Business Direct Install MTP	1,703	8,515,795	1,459	7,133,934
Solar PV SOP	1,534	4,979,022	1,534	4,979,022
Retail Products MTP	3,449	20,521,745	6,505	26,489,290
Commercial Midstream MTP	1,607	3,000,450	1,588	2,964,683
Strategic Energy Management MTP (Pilot)	1,145	16,709,700	1,047	6,700,000
Winter Commercial Emergency Load Management MTP (Pilot)	35,000	105,000	35,000	105,000
Residential	62,231	113,935,695	75,228	138,618,427
Home Energy Efficiency SOP	13,255	23,548,071	18,266	35,683,104
Solar PV SOP	1,015	3,409,927	1,015	3,409,927
Residential Load Management SOP	35,000	105,000	35,000	105,000
Retail Products MTP	12,061	82,772,697	19,353	95,675,244
Residential New Home Construction MTP	900	4,100,000	1,594	3,745,152
Hard-to-Reach	16,928	20,842,952	19,062	31,197,490
Hard-to-Reach SOP	13,971	17,131,751	14,406	20,489,041
Targeted Weatherization Low-Income SOP	2,957	3,711,201	3,779	7,018,449
HVAC Tune-Up LIW (Pilot)	NA	NA	877	3,690,000
Total Annual Savings Goals	201,182	253,599,247	215,946	291,195,436

IV. Program Budgets

Table 6 represents total proposed budget allocations required to achieve the projected demand and energy savings shown in Table 5. The budget allocations are defined by the overall demand and energy savings presented above, allocation of demand savings goals among customer classes, and SB 712 and SB 1434 Targeted Low-Income mandates. The budget allocations presented in Table 6 below are first broken down by customer class and program, and are then further subdivided into the incentive payments and administration categories.

Administration costs include labor and loading, evaluation, outreach, Energy Efficiency Program Management (tracking and reporting system), program development, program implementation, regulatory reporting, and any costs incurred associated with the EECRF filing by the company. Costs associated with specific programs are charged directly to those programs, while costs not associated with specific programs are allocated among all programs.

While Oncor has estimated budgets by customer class, Oncor plans to track and report budgets by program, since individual programs may serve multiple customer classes.

Table 6: Proposed Annual Budget Broken Out by Program for Each Customer Class

2022 Customer Class & Program	Incentives	Administration	Total Budget
Commercial	\$16,771,143	\$1,944,617	\$18,715,760
Commercial SOP	\$7,330,930	\$854,204	\$8,185,134
Commercial Load Management SOP	\$2,000,000	\$148,231	\$2,148,231
Solar PV SOP	\$2,038,440	\$266,704	\$2,305,144
Small Business Direct Install MTP	\$1,741,110	\$200,098	\$1,941,208
Retail Products MTP	\$255,370	\$28,635	\$284,005
Strategic Energy Management MTP (Pilot)	\$905,313	\$166,198	\$1,071,511
Commercial Midstream MTP	\$1,099,980	\$145,791	\$1,245,771
Winter Commercial Load Management	\$1,400,000	\$134,756	\$1,534,756
Residential	\$17,280,910	\$1,847,172	\$19,128,082
Home Energy Efficiency SOP	\$8,600,000	\$951,202	\$9,551,202
Solar PV SOP	\$1,348,950	\$178,472	\$1,527,422
Residential Load Management SOP	\$1,050,000	\$107,941	\$1,157,941
Retail Products MTP	\$4,851,960	\$544,137	\$5,396,097
Residential New Home Construction MTP	\$1,430,000	\$65,420	\$1,495,420
Hard-to-Reach	\$10,375,260	\$1,206,411	\$11,581,671
Hard-to-Reach SOP	\$5,789,580	\$649,284	\$6,438,864
Targeted Weatherization Low-Income SOP	\$4,585,680	\$557,127	\$5,142,807

Research & Development*	\$0	\$255,000	\$255,000
Evaluation, Measurement & Verification**	\$0	\$733,805	\$733,805
Total Budgets by Category***	\$44,427,313	\$5,987,005	\$50,414,318
2023 Customer Class and Program	Incentives	Administration	Total Budget
Commercial	\$17,952,120	\$2,047,820	\$19,999,940
Commercial SOP	\$8,493,760	\$1,189,130	\$9,682,890
Commercial Load Management SOP	\$1,800,000	\$144,000	\$1,944,000
Solar PV SOP	\$2,038,440	\$202,330	\$2,240,770
Small Business Direct Install MTP	\$1,914,830	\$153,190	\$2,068,020
Retail Products MTP	\$223,840	\$15,670	\$239,510
Strategic Energy Management MTP (Pilot)	\$781,260	\$62,500	\$843,760
Commercial Midstream MTP	\$1,299,990	\$169,000	\$1,468,990
Winter Commercial Load Management	\$1,400,000	\$112,000	\$1,512,000
Residential	\$17,258,137	\$1,874,110	\$19,132,247
Home Energy Efficiency SOP	\$8,328,360	\$1,107,670	\$9,436,030
Solar PV SOP	\$1,348,950	\$163,680	\$1,512,630
Residential Load Management SOP	\$1,050,000	\$84,000	\$1,134,000
Retail Products MTP	\$4,990,947	\$349,370	\$5,340,317
Residential New Home Construction MTP	\$1,539,880	\$169,390	\$1,709,270
Hard-to-Reach	\$10,829,600	\$1,489,850	\$12,319,450
Hard-to-Reach SOP	\$5,650,940	\$791,130	\$6,442,070
Targeted Weatherization Low-Income SOP	\$4,678,620	\$673,720	\$5,352,340
HVAC Tune-up LIW	\$500,040	\$25,000	\$525,040
Research & Development*	\$0	\$214,000	\$214,000
Evaluation, Measurement & Verification**	\$0	\$740,492	\$740,492
Total Budgets by Category	\$46,039,857	\$6,366,272	\$52,406,129

*Research & Development costs will be split into Residential and Commercial classes and then allocated among the Programs (by class) in proportion to the program incentives in Oncor's EECRF filings.

**EM&V costs shown for 2022 are projected expenditures Oncor will incur in 2022 for completing review of Program Year 2021. EM&V costs shown for 2023 are projected expenditures Oncor will incur in 2023 for EM&V of 2022 programs.

***2022 Total Budget reflects the approved amount in Oncor's 2022 EECRF, Project No. 52178, ordering paragraph no. 2.

ENERGY EFFICIENCY REPORT

V. Historical Demand Savings Goals and Energy Targets for Previous Five Years

Table 7 documents Oncor's projected demand savings, actual demand goals and projected energy savings for the previous five years (2017-2021) calculated in accordance with 16 TAC §25.181.

Table 7: Historical Demand Savings Goals and Energy Targets

Calendar Year	Actual Demand Goal (MW at Meter)*	Projected Savings (MW at Meter)	Projected Energy Savings (MWh at Meter)	Reported & Verified Savings (MW at Meter)*	Reported & Verified Energy Savings (MWh at Meter)
2021⁶	94.5	165.0	254,533	209.9	309,859
2020⁷	69.4	163.3	248,055	199.2	295,496
2019⁸	69.4	161.4	218,630	167.4	243,152
2018⁹	69.4	155.3	206,072	172.4	218,304
2017¹⁰	69.4	145.8	208,513	155.2	170,124

* The 2021 MW savings at the Source is 222.24 (209.9 MW / (1 - .05561 line loss)). The 2021 demand goal MW at the source is 100.1 (94.5 MW / (1 - .05561 line loss)). The line loss was reported in Oncor's 2021 EECRF (Docket No. 52178 – WP/MAT/4).

⁶ Projected MW Savings and Projected Energy Savings as reported in the 2021 Energy Efficiency Plan & Report (EEPR) filed in April of 2021 under Project No. 52178. Actual Demand Goal as discussed in Tables 1 & 4.

⁷ Projected MW Savings and Projected Energy Savings as reported in the 2020 Energy Efficiency Plan & Report (EEPR) filed in April of 2020 (and amended on May 18, 2020) under Project No. 50666. Actual Demand Goal as discussed in Tables 1 & 4.

⁸ Projected MW Savings and Projected Energy Savings as reported in the 2019 Energy Efficiency Plan & Report (EEPR) filed in April of 2019 (and amended on May 24, 2019) under Project No. 49297. Actual Demand Goal as discussed in Tables 1 & 4.

⁹ Projected MW Savings and Projected Energy Savings as reported in the 2018 Energy Efficiency Plan & Report (EEPR) filed in March of 2018 under Project No. 48146. Actual Demand Goal as discussed in Tables 1 & 4.

¹⁰ Projected MW Savings and Projected Energy Savings as reported in the 2017 Energy Efficiency Plan & Report (EEPR) filed in April of 2017 under Project No. 46907. Actual Demand Goal as discussed in Tables 1 & 4.

VI. Projected, Reported and Verified Demand and Energy Savings

Table 8: Projected versus Reported and Verified Savings for 2021 and 2020¹¹ (at Meter)

2021	Projected Savings		Reported and Verified Savings	
Customer Class and Program	kW	kWh	kW	kWh
Commercial	78,536	110,618,913	105,960	124,899,425
Commercial SOP	12,562	67,009,760	19,002	84,006,948
Commercial Load Management SOP ¹²	60,000	180,000	78,125	234,374
Solar PV SOP	1,534	4,979,022	2,126	6,813,109
Small Business Direct Install MTP	2,610	15,698,285	750	3,404,152
Retail Products MTP	891	4,003,671	5,915	30,026,196
Retro-commissioning MTP	0	13,000,000	0	330,162
Commercial HVAC Distributor MTP	939	5,748,175	42	84,484
Residential	69,709	119,271,763	85,183	158,049,617
Home Energy Efficiency SOP	20,873	35,602,085	18,512	35,615,375
Solar PV SOP	1,015	3,409,927	1,460	5,003,812
Residential Load Management SOP	30,000	90,000	40,739	122,217
Retail Products MTP	16,921	76,069,751	23,496	116,059,268
Residential New Home Construction MTP	900	4,100,000	976	1,248,945
Hard-to-Reach	16,733	24,642,075	18,753	26,909,513
Hard-to-Reach SOP	14,021	20,631,773	15,502	20,879,661
Targeted Weatherization LI SOP	2,712	4,010,302	3,251	6,029,852
Total Annual Savings Goals	164,978	254,532,751	209,896	309,858,555

¹¹ Projected Savings totals for 2021 and 2020 from Table 7. Reported Savings may not add due to rounding.

¹² Actual and evaluated program performance is 103,180 kW and 309,539 kWh. Oncor only claims kW and kWh savings up to the amount of the incentive paid to participating service providers.

2020 ¹³	Projected Savings		Reported and Verified Savings	
Customer Class and Program	kW	kWh	kW	kWh
Commercial	78,229	104,867,314	100,405	112,287,875
Commercial HVAC Distributor MTP (Pilot)	417	2,552,190	0	0
Commercial SOP	12,711	69,142,575	14,776	69,110,224
Commercial Load Management SOP	60,000	180,000	75,000	225,000
Solar PV SOP	1,534	4,979,022	2,251	7,262,460
Small Business Direct Install MTP	2,610	15,711,041	1,114	5,646,892
Retail Products MTP	957	4,302,486	7,264	29,608,109
Retro-commissioning MTP	0	8,000,000	0	435,190
Residential	70,243	120,422,235	80,542	155,499,576
Home Energy Efficiency SOP	20,899	35,709,065	21,414	39,869,056
Solar PV SOP	1,160	2,875,930	1,555	5,261,327
Residential Load Management SOP	30,000	90,000	35,000	104,999
Retail Products MTP	18,184	81,747,240	22,573	110,264,194
Hard-to-Reach	14,866	22,765,611	18,256	27,708,914
Hard-to-Reach SOP	12,108	18,688,666	14,549	20,952,752
Targeted Weatherization LI SOP Weatherization SOP	2,758	4,076,945	3,707	6,756,162
Total Annual Savings Goals	163,338	248,055,160	199,203	295,496,365

¹³ Reported and Verified Savings data for 2020 taken from EEPR, Project 51672

VII. Historical Program Expenditures

This section documents Oncor's incentive and administration expenditures for the previous five years (2017-2021) broken out by program for each customer class.

Table 9: Historical Program Incentive and Administrative Expenditures for 2016 through 2020

	2021		2020		2019		2018		2017	
	Incentive (\$)	Admin (\$)	Incentive (\$)	Admin (\$)	Incentive (\$)	Admin (\$)	Incentive (\$)	Admin (\$)	Incentive (\$)	Admin (\$)
Commercial	\$17,344,746	\$2,328,489	\$16,378,224	\$2,151,317	\$17,737,374	\$2,618,203	\$18,551,494	\$2,810,365	\$16,421,430	\$2,258,138
Solar PV SOP	\$2,513,874	\$296,523	\$2,680,757	\$309,811	\$2,751,931	\$348,614	\$3,199,284	\$404,539	\$2,016,566	\$296,888
Commercial SOP (Custom)	NA	NA	NA	NA	\$304,852	\$78,986	\$1,220,715	\$333,133	\$2,219,776	\$274,463
Commercial Load Management SOP	\$2,500,000	\$219,270	\$2,625,000	\$233,444	\$2,280,000	\$219,548	\$2,264,382	\$221,156	\$2,335,033	\$206,441
Retail Products MTP	\$261,824	\$20,218	\$215,648	\$17,004	\$146,966	\$13,412	\$87,693	\$7,681	NA	NA
Small Business Direct Install MTP	\$1,069,470	\$91,657	\$1,304,087	\$106,960	\$1,880,379	\$179,987	\$3,407,414	\$281,331	\$1,640,121	\$136,407
Healthcare MTP	NA	NA	NA	NA	NA	NA	NA	NA	\$363,758	\$26,348
Retro-commissioning MTP	\$39,898	\$33,090	\$128,413	\$35,325	\$153,864	\$38,835	NA	NA	NA	NA
Commercial SOP	\$10,722,024	\$1,632,640	\$9,206,772	\$1,433,891	\$10,219,382	\$1,738,821	\$8,372,006	\$1,562,525	\$7,846,176	\$1,317,591
Commercial HVAC Distributor MTP	\$237,657	\$35,090	\$217,547	\$14,882	NA	NA	NA	NA	NA	NA
Residential	\$16,264,512	\$1,725,419	\$16,235,042	\$1,683,150	\$14,408,317	\$1,719,366	\$14,255,973	\$1,819,899	\$15,618,050	\$1,900,301
Home Energy Efficiency SOP	\$7,734,703	\$918,967	\$8,729,508	\$974,663	\$8,436,929	\$1,044,545	\$9,786,238	\$1,270,240	\$12,111,569	\$1,451,784
Solar PV SOP	\$1,797,902	\$265,184	\$1,899,479	\$264,504	\$2,007,054	\$312,976	\$1,487,569	\$283,920	\$2,540,451	\$359,259
Residential Load Management SOP	\$1,303,638	\$107,389	\$1,225,000	\$101,503	\$1,118,156	\$102,917	\$1,316,000	\$119,803	\$966,030	\$89,258
Retail Products MTP	\$4,974,647	\$384,143	\$4,381,055	\$342,480	\$2,846,178	\$258,928	\$1,666,166	\$145,936	NA	NA
Residential New Home Construction MTP	\$453,622	\$49,736	NA	NA	NA	NA	NA	NA	NA	NA
Hard-to-Reach	\$11,022,849	\$1,151,840	\$11,134,111	\$1,137,527	\$10,467,278	\$1,163,385	\$9,162,979	\$1,172,244	\$11,048,655	\$1,264,640
Hard-to-Reach SOP	\$6,378,548	\$708,926	\$6,265,399	\$684,349	\$6,038,597	\$753,931	\$4,685,428	\$753,177	\$6,019,635	\$847,106
Targeted Weatherization LI SOP	\$4,644,301	\$442,914	\$4,868,712	\$453,178	\$4,428,681	\$409,454	\$4,477,551	\$419,067	\$5,029,020	\$417,534
Total Program Expenditures	\$44,632,108	\$5,205,747	\$43,747,377	\$4,971,994	\$42,612,969	\$5,500,954	\$41,970,446	\$5,802,508	\$43,088,135	\$5,423,079

VIII. Program Funding for Calendar Year 2021

Oncor exceeded its 2021 mandated demand goal of 94.5 MW by obtaining 209.9 MW in energy efficiency savings. As shown on Table 10, funds were either spent or committed by contracts with energy efficiency service providers in the amount of \$53,954,783.

The **Home Energy Efficiency SOP** was under budget in 2021 because of continued impacts of Covid-19 limiting the ability of service providers to enter customer's homes. In addition, supply chain shortage of qualified equipment caused the inability of service providers to provide and deliver equipment to residential customer homes.

The **Residential Solar Photovoltaic Installation SOP** was over budget in 2021 because other residential programs fell short of their budget and their incentives were reallocated to the residential solar program. In the fourth quarter of 2021, reallocated funds were utilized to test the participation of the battery storage qualifier and determine whether the offering is viable for the program.

The **Residential New Home Construction MTP** was under budget in 2021 because the RFP was conducted in the first quarter of 2021 and the final program contract was not awarded until midyear. The priority of the program was the start-up, outreach to builders and raters, and integration of the platform into Oncor internal systems.

The **Retail Products MTP** was over budget in 2021 because other residential programs fell short of their budget and their incentives were reallocated to the program. The reallocated funds were utilized to increase the availability of lighting products and smart thermostats to stores that have higher product turnover. This ensured that the incentives continue to be available to customers throughout the year.

The **Residential Load Management SOP** was over budget in 2021 due to the ability of the Service Providers in this program to achieve a higher level of demand savings when other residential programs fell short of their budget.

The **Commercial SOP** was over budget in 2021 because other commercial programs fell short of their budget and their incentives were reallocated to the Commercial SOP. The reallocated funds were utilized to provide energy efficiency incentives for commercial projects that were in the pipeline.

The **Commercial HVAC Distributor MTP** was under budget in 2021 because of the transition of the HVAC measure from the downstream to the midstream platform. The primary focus of the midstream program in 2021 was distributor recruitment as well as providing education and training to service providers of the shift in incentives from the downstream to the midstream distributor model. In addition, supply chain shortage of qualified equipment caused the inability to provide and deliver equipment.

The **Commercial Load Management SOP** was over budget in 2021 due to the ability of the Service Providers in this program to achieve a higher level of demand savings when other commercial programs fell short of their budget.

The **Small Business Direct Install MTP** was under budget in 2021 because of the continued impacts of Covid-19 in small businesses especially in the early part of 2021. The Small Business sector was affected more than other commercial sectors due to the pandemic. Besides decreased

sales, businesses did not want to grant the implementer access to their facilities as a safety precaution.

The **Retro-commissioning MTP** was under budget in 2021 because the pilot program ended in 2021. Several projected participants were also reluctant to move forward in the program without seeing actual results from similar projects. In addition, the impacts of Covid-19 from 2020 into early 2021 limited the implementation contractor's ability to meet and recruit customers for the program.

The **Commercial Solar Photovoltaic Installation SOP** was over budget in 2020 when other commercial program fell short of their budget and the incentives were reallocated to the Commercial Solar program. The reallocated funds were utilized to provide incentives a large number of projects in the pipeline.

Table 10: Program Funding for Calendar Year 2021

Programs	Number of Customer Meters	Total Projected Budget ¹⁴ (\$)	Actual Funds Expended (Incentives) (\$)	Actual Funds Expended (Admin)* (\$)	Total Funds Expended (\$)	Funds Committed (Not Expended) (\$)	Funds Remaining (Not Committed) (\$)
Commercial	1,183	19,479,096	17,344,746	2,328,489	19,673,235	3,210,399	(3,404,538)
Solar PV SOP	54	2,323,820	2,513,874	296,523	2,810,397	0	(486,577)
Commercial SOP	755	8,405,181	10,722,024	1,632,640	12,354,664	3,210,399	(7,159,882)
Commercial Load Management SOP	264	2,394,000	2,500,000	219,270	2,719,270	0	(325,270)
Retail Products MTP	NAV	240,845	261,824	20,218	282,042	0	(41,197)
Small Business Direct Install MTP	101	3,453,630	1,069,470	91,657	1,161,127	0	2,292,503
Retro-commissioning MTP	1	1,164,800	39,898	33,090	72,988	0	1,091,812
Commercial HVAC Distributor MTP	8	1,496,820	237,657	35,090	272,747	0	1,224,073
Residential	41,518	19,237,075	16,264,512	1,725,419	17,989,931	0	1,247,144
Home Energy Efficiency SOP	8,116	10,434,600	7,734,703	918,967	8,653,670	0	1,780,930
Solar PV SOP	325	1,539,920	1,797,902	265,184	2,063,086	0	(523,166)
Residential Load Management SOP	33,077	1,186,500	1,303,638	107,389	1,411,027	0	(224,527)
Retail Products MTP	NAV	4,576,055	4,974,647	384,143	5,358,790	0	(782,735)
Residential New Home Construction MTP	378	1,500,000	453,622	49,736	503,358	0	996,642
Hard-to-Reach	12,872	12,754,350	11,022,849	1,151,840	12,174,689	0	579,661
Hard-to-Reach SOP	11,739	7,554,350	6,378,548	708,926	7,087,474	0	466,876
Targeted Low-Income SOP	1,133	5,200,000	4,644,301	442,914	5,087,215	0	112,785
Research & Development	NA	150,000	0	188,039	188,039	0	(38,039)
EM&V**	NA	718,490	0	718,490	718,490	0	0
Total	55,573	52,339,011	44,632,108	6,112,276	50,744,384	3,210,399	(1,615,772)

* Administration funds include \$12,048 of Rate Case Expenses approved in Docket No. 52178.

** EM&V costs shown are actual booked costs for 2021. For purposes of cost-effectiveness and bonus calculations, \$733,805 is used per TetraTech's 2021 EM&V cost allocation.

¹⁴ Projected Budget taken from the EEPR filed in April 2021 under Project No. 52178

IX. Market Transformation and Research & Development Results

Energy Efficiency Service Providers have the opportunity to bid to become an implementer on one or more of Oncor's Market Transformation Programs. The process Oncor uses to choose implementers includes identifying potential bidders, distributing RFPs, conducting a Bidders Conference, evaluating proposals, narrowing bidders to a shortlist, conducting oral presentations, selecting the winning bid, and negotiating and finalizing the contract.

Oncor's 2021 Market Transformation and Research & Development Programs are described below.

Small Business Direct Install Program MTP (SBDI MTP)

Oncor's SBDI MTP was launched during the third quarter of 2013. The existing implementer's contract was terminated on December 31, 2021 and a RFP was conducted for the program in the third quarter of 2021. Oncor went through the entire RFP process including identifying potential bidders and evaluating proposals to narrowing the bidders to a shortlist. A final implementation contractor was selected and the contract was awarded to the successful bidder in the fourth quarter of 2021. The implementer has managed similar programs for utilities across the United States. This program was developed to assist an under-served segment identified by Oncor. SBDI MTP is a market transformation program designed to offer participating small commercial customers education on energy efficiency technologies, equip participating sub-contractors with the tools they need to succeed in installing projects in the small business market, and offer incentives to assist small (≤ 200 kW) businesses to install energy-efficient products such as high efficiency lighting and refrigeration measures. The program is focused on the non-Metro counties served by Oncor. The Program goals for 2021 were to provide convenient, turn-key select energy efficient measures to small and mid-sized non-residential customers.

Retail Products MTP (RP MTP)

Oncor's RP MTP was launched during the fourth quarter of 2018 and has continued to be successful in 2021, resulting in an extension of the implementer's contract through 2024. This program was developed to provide incentives directly to Oncor Residential Customers through in-store point of sale discounts for the purchase of qualifying ENERGY STAR-rated LED lighting products. In November of 2018 a smart thermostat measure was added to the Retail Products MTP with select Nest and Ecobee smart thermostats available to customers served by Oncor. In addition, Honeywell, Emerson and Amazon products have been added to Smart Thermostat options to increase the product mix. Much of the Program's success was due to the working relationship developed between the implementer and major market manufactures as well as participating retail partners in the Dallas/Ft. Worth area, such as Home Depot, Lowe's, Walmart and Costco. Retailers Dollar Tree and Sam's Club were also added in 2020 and continued into 2021. Claimed savings were attributed based on 5 percent of upstream lighting program benefits and costs allocated to commercial customers with the remaining 95 percent allocated to residential customers as recommended in the Texas TRM. Commercial savings are calculated using the 'office' building type for lighting based on Texas TRM guidelines. Smart thermostat costs and benefits are attributed 100% to residential customers.

Retro-commissioning MTP (RC MTP)

RC MTP was launched during the second quarter of 2019. An implementer was awarded the contract in 2018 after a RFP was conducted. With the continued impacts of Covid-19, the program failed to gain any traction for the commercial sector in 2020 and 2021. As such the program pilot ended in

2021. Retro-commissioning as a measure will be included as part of the program offering for the Strategic Energy Management MTP with program launch scheduled in the fourth quarter of 2021.

Commercial Midstream MTP (CM MTP)

CM MTP formerly known as Commercial HVAC Distributor MTP was launched in the fourth quarter of 2020 after an implementer was awarded the contract. The implementer has managed similar programs for utilities across the United States. This program is a market transformation program designed to provide incentives to air conditioning distributors who agree to facilitate the installation of high-efficiency air conditioners and heat pumps in commercial facilities. The program utilizes the midstream, distributor-focused model which is designed to provide incentives to the manufacturers and distributors of equipment and reaches down the entire supply chain to ensure incentives engage service providers and customers. The focus of the program in 2021 was the start-up and integration of the program and the recruitment of distributors where each distributor is strategically located in the Oncor service territory ensuring availability of the measure to the area. Oncor will continue to analyze energy efficiency measures that will be included in CM MTP where the distributor focused model will provide better engagement for said measure in midstream rather than downstream.

Residential New Home Construction MTP (RNHC MTP)

RNHC MTP was launched in the fourth quarter of 2021 after a RFP was conducted for the program in the second quarter of 2021. Oncor went through the process of identifying an implementer by conducting an RFP from identifying potential bidders, to a bidder's conference, bidder presentation, shortlist and identification of implementation contractor. The contract was awarded in July 2021. The program is designed to promote the adoption of energy efficient measures by encouraging the construction of above code new residential homes. The program offers incentives to single family residential new home builders that construct Department of Energy Zero Energy Ready Home certified and Environmental Protection Agency ENERGY STAR® certified new homes in the Oncor service area. The program provides incentives to builders for achieving energy efficiency savings through a combination of installed measures, including high efficiency HVAC, ENERGY STAR® appliances, heat pump water heaters, LED lighting, solar photovoltaic systems, and shell upgrades. New home builders will construct homes to meet the energy efficiency requirements established by the ENERGY STAR® program or build at a higher efficiency level than the currently adopted building code.

Research and Development

In 2021, Oncor continued the development of the technology incubatory with the goal of building a pipeline of new technologies for review and analysis. Oncor engaged a third party consultant to conduct an emerging technologies study to works towards this goal specific to the Oncor service territory and reviewed over 300 technologies for evaluation. Oncor will continue to develop studies and analysis for developing technologies and program design analysis.

Oncor also continued its membership in TEPRI for 2021. TEPRI is a 501(c) (3) whose mission is to research the root causes of energy and fuel poverty and provide data for solutions that have an impact on low-income households. In 2022, TEPRI will continue compiling Best Practices of Low-Income Services, Programs, and Technologies. TEPRI conducted a research study to investigate and develop recommendations for the revised program eligibility verification approaches for low-income and hard-to-reach energy efficiency program. Additionally, TEPRI will update their portal of

information on publications, websites, and other resources that are specific to the topic of energy and poverty in Texas and the nation.

Other organizations providing research services and data include the Smart Energy Consumer Collaborative.

X. Current Energy Efficiency Cost Recovery Factor (EECRF)

Oncor billed \$60,578,809 during 2021 through the EECRF approved in Docket No. 50886.

Revenue Billed

\$60,578,809

Over- or Under-Recovery

\$2,579,123 (Under) - This amount will be trued-up by rate class in Oncor's EECRF filing in 2022.

EECRF Filed in 2021 in Docket No. 52178

Oncor's most recent EECRF filing was in Docket No. 52178 for the 2022 program year. The revenues to be collected as a result of the final Order in that docket will be determined at a later date after the completion of the 2022 program year and does not involve any revenues from base rates.

ACRONYMS

BAS	Building Automation System
CLM	Commercial Load Management
CSOP	Commercial Standard Offer Program
CSPV	Commercial Solar Photovoltaic Installation
DDC	Direct Digital Control
DR	Demand Response
DSM	Demand Side Management
EECRF	Energy Efficiency Cost Recovery Factor
EEP	Energy Efficiency Plan, which was filed as a separate document prior to April 2008
EEPR	Energy Efficiency Plan and Report
EER	Energy Efficiency Report, which was filed as a separate document prior to April 2008
EE Rule	Energy Efficiency Rule, PUCT 16 TAC §25.181 and §25.183
ELM	Energy Load Management
EM&V	Evaluation, Measurement and Verification
EMS	Energy Management System
EUL	Estimated Useful Life
ERCOT	Electric Reliability Council of Texas
HEE	Home Energy Efficiency
HTR	Hard-To-Reach
HVAC	Heating, Ventilation, and Air-conditioning
HTR	Hard to Reach
IDR	Interval Data Recorder
kW	Kilowatt

kWh	Kilowatt-hour
LED	Light Emitting Diode
M&V	Measurement and Verification
MTP	Market Transformation Program
MW	Megawatt
MWh	Megawatt-hour
PUCT	Public Utility Commission of Texas
PURA	Public Utility Regulatory Act
RCMTP	Retro-commissioning Commercial Tune-up Program
REP	Retail Electrical Provider
RLMMTP	Residential Load Management Market Transformation Program
RPMT	Retail Products Market Transformation Program
RSPV	Residential Solar Photovoltaic Installation
SBDI	Small Building Direct Install
SEM	Strategic Energy Management
SIR	Savings to Investment Ratio
SOP	Standard Offer Program
TAC	Texas Administrative Code
TACAA	Texas Association of Community Action Agencies
TEPRI	Texas Energy Poverty Research Institute
TRM	Texas Technical Reference Manual
WAP	Weather Assistance Program
WELM	Winter Commercial Load Management

GLOSSARY

Actual weather adjusted -- “Actual weather adjusted” peak demand and energy consumption is the historical peak demand and energy consumption adjusted for weather fluctuations using weather data for the most recent ten years.

Air infiltration – Air infiltration is the exchange of air through cracks and gaps in the outside shell of a building. Infiltration increases heating and cooling costs and reduces the comfort level of occupants.

At meter -- Demand (kW/MW) and Energy (kWh/MWh) figures reported throughout the EEPR are reflective of impacts at the customer meter. This is the original format of the measured and deemed impacts which the utilities collect for their energy efficiency programs. Goals are necessarily calculated “at source” (generator) using utility system peak data at the transmission level. In order to accurately compare program impacts, goals and projected savings have been adjusted for the line losses that one would expect going from the source to the meter.

Average Growth -- Average historical growth in demand (kW) over the prior five years for residential and commercial customers adjusted for weather fluctuations.

Baseline -- A relevant condition that would have existed in the absence of the energy efficiency project or program being implemented, including energy consumption that would have occurred. Baselines are used to calculate program-related demand and energy savings. Baselines can be defined as either project-specific baselines or performance standard baselines (e.g. building codes).

Base rate – Generally, a rate designed to recover the cost of service other than certain costs separately identified and recovered through a rider, rate schedule, or other schedule. For bundled utilities, these separately identified costs may include items such as a fuel factor, power cost recovery factor, and surcharge. Distribution service providers may have separately identified costs such as transition costs, the excess mitigation charge, transmission cost recovery factors, and the competition transition charge.

Building automation system (BAS) – A Building Automation System (BAS), (also referred to as a Building Management System or a Building Control System), is a system that controls various electric, electronic and mechanical systems throughout a building.

Commercial customer -- A non-residential customer taking service at a point of delivery at a distribution voltage under an electric utility’s tariff during the prior program year or a non-profit customer or government entity, including an educational institution. For purposes of Commission rules, each point of delivery shall be considered a separate customer.

Competitive energy efficiency services -- Energy efficiency services that are defined as competitive under §25.341 of the PUCT’s rules.

Conservation load factor – The ratio of the annual energy savings goal, in kilowatt hours (kWh), to the peak demand goal for the year, measured in kilowatts (kW) and multiplied by the number of hours in the year.

Curtailement – deliberate reduction in output below what could have been produced in order to balance energy supply and demand or due to transmission constraints.

Deemed savings calculation -- An industry-wide engineering algorithm used to calculate energy and/or demand savings of the installed energy efficiency measure that has been developed from common practice that is widely considered acceptable for the measure and purpose, and is applicable to the situation being evaluated. May include stipulated assumptions for one or more parameters in the algorithm, but typically requires some data associated with actual installed measure. An electric utility may use the calculation with documented measure-specific assumptions, instead of energy and peak demand savings determined through measurement and verification activities or the use of deemed savings.

Deemed savings value -- An estimate of energy or demand savings for a single unit of an installed energy efficiency measure that has been developed from data sources and analytical methods that are widely considered acceptable for the measure and purpose, and is applicable to the situation being evaluated. An electric utility may use deemed savings values instead of energy and peak demand savings determined through measurement and verification activities.

Demand -- The rate at which electric energy is used at a given instant, or averaged over a designated period, usually expressed in kilowatts (kW) or megawatts (MW).

Demand savings -- A quantifiable reduction in demand.

Direct digital control (DDC) -- Direct digital control is the automated control of a condition or process by a digital device (computer).

Eligible customers -- Residential and commercial customers. In addition, to the extent that they meet the criteria for participation in load management standard offer programs developed for industrial customers and implemented prior to May 1, 2007, industrial customers are eligible customers solely for the purpose of participating in such programs.

Energy efficiency -- Improvements in the use of electricity that are achieved through customer facility or customer equipment improvements, devices, processes, or behavioral or operational changes that produce reductions in demand or energy consumption with the same or higher level of end-use service and that do not materially degrade existing levels of comfort, convenience, and productivity.

Energy Efficiency Cost Recovery Factor (EECRF) -- An electric tariff provision, compliant with 16 TAC §25.182, ensuring timely and reasonable cost recovery for utility expenditures made to satisfy the goal of PURA §39.905 that provide for a portfolio of cost-effective energy efficiency programs under this section.

Energy efficiency measures -- Equipment, materials, and practices, including practices that result in behavioral or operational changes, implemented at a customer's site on the customer's side of the meter that result in a reduction at the customer level and/or on the utility's system in electric energy consumption, measured in kWh, or peak demand, measured in kW, or both. These measures may

include thermal energy storage and removal of an inefficient appliance so long as the customer need satisfied by the appliance is still met.

Energy efficiency program -- The aggregate of the energy efficiency activities carried out by an electric utility under this section or a set of energy efficiency projects carried out by an electric utility under the same name and operating rules.

Energy efficiency project -- An energy efficiency measure or combination of measures undertaken in accordance with a standard offer, market transformation program, or self-delivered program.

Energy efficiency service provider -- A person or other entity that installs energy efficiency measures or performs other energy efficiency services under 16 TAC §25.181. An energy efficiency service provider may be a retail electric provider or commercial customer, provided that the commercial customer has a peak load equal to or greater than 50 kW. An energy efficiency service provider may also be a governmental entity or a non-profit organization, but may not be an electric utility.

Energy Management System (EMS) -- is a system of computer-aided tools used by operators of electric utility grids to monitor, control, and optimize the performance of the generation or transmission system.

Energy savings -- A quantifiable reduction in a customer's consumption of energy that is attributable to energy efficiency measures, usually expressed in kWh or MWh.

ENERGY STAR® -- A program which provides certification to buildings and consumer products which meet certain standards of energy efficiency.

Estimated useful life (EUL) -- The number of years until 50% of installed measures are still operable and providing savings, and is used interchangeably with the term "measure life". The EUL determines the period of time over which the benefits of the energy efficiency measure are expected to accrue.

Growth in demand -- The annual increase in demand in the Texas portion of an electric utility's service area at time of peak demand, as measured in accordance with 16 TAC Rule §25.181.

Hard-to-reach (HTR) customers -- Residential customers with an annual household income at or below 200% of the federal poverty guidelines.

Heat pump -- A device that transfers heat from a colder area to a hotter area by using mechanical energy, as in a refrigerator.

Incentive payment -- Payment made by a utility to an energy efficiency service provider, an end-use customer, or third-party contractor to implement and/or attract customers to energy efficiency programs, including standard offer, market transformation, and self-delivered programs.

Industrial customer -- A for-profit entity engaged in an industrial process taking electric service at transmission voltage, or a for-profit entity engaged in an industrial process taking electric service at

distribution voltage that qualifies for a tax exemption under Tax Code §151.317 and has submitted an identification notice under subsection (u) of 16 TAC §25.181.

Inspection -- Examination of a project to verify that an energy efficiency measure has been installed, is capable of performing its intended function, and is producing an energy savings or demand reduction equivalent to the energy savings or demand reduction reported towards meeting the energy efficiency goals of this section.

Lifetime energy (demand) savings -- The energy (demand) savings over the lifetime of an installed measure(s), project(s), or program(s). May include consideration of measure estimated useful life, technical degradation, and other factors. Can be gross or net savings.

Load control -- Activities that place the operation of electricity-consuming equipment under the control or dispatch of an energy efficiency service provider, an independent system operator, or other transmission organization or that are controlled by the customer, with the objective of producing energy or demand savings.

Load management -- Load control activities that result in a reduction in peak demand, or a shifting of energy usage from a peak to an off-peak period or from high-price periods to lower price periods.

Market transformation program -- Strategic programs intended to induce lasting structural or behavioral changes in the market that result in increased adoption of energy efficient technologies, services, and practices, as described in 16 TAC Rule §25.181.

Measurement and verification -- A subset of program impact evaluation that is associated with the documentation of energy or demand savings at individual sites or projects using one or more methods that can involve measurements, engineering calculations, statistical analyses, and/or computer simulation modeling. M&V approaches are defined in the IPMVP.

Off-peak period -- Period during which the demand on an electric utility system is not at or near its maximum. For the purpose of this section, the off-peak period includes all hours that are not in the peak period.

Optimal start / stop -- Optimal Start/Stop is used to anticipate the heating or cooling needs of a space by starting equipment early enough to reach set point just at the beginning of scheduled occupancy.

Peak demand -- Electrical demand at the times of highest annual demand on the utility's system at the source. Peak demand refers to Texas retail peak demand and, therefore, does not include demand of retail customers in other states or wholesale customers.

Peak demand reduction -- Reduction in demand on the utility's system at the times of the utility's summer peak period or winter peak period.

Peak period -- For the purpose of this section, the peak period consists of the hours from one p.m. to seven p.m. during the months of June, July, August, and September, and the hours of six to ten a.m. and six to ten p.m. during the months of December, January, and February, excluding weekends and Federal holidays.

Program Year -- A year in which an energy efficiency incentive program is implemented, beginning January 1 and ending December 31.

Projected Demand and Energy Savings -- Peak demand reduction and energy savings for the current and following calendar year that Oncor is planning and budgeting for in the EEPR.

Renewable demand side management (DSM) technologies -- Equipment that uses a renewable energy resource (renewable resource), as defined in §25.173(c) (relating to Goal for Renewable Energy), a geothermal heat pump, a solar water heater, or another natural mechanism of the environment, that when installed at a customer site, reduces the customer's net purchases of energy, demand, or both.

Retail electric provider (REP) -- Organization that sells electric energy to retail customers in this state. A retail electric provider may not own or operate generation assets.

Savings-to-Investment Ratio (SIR) -- The ratio of the present value of a customer's estimated lifetime electricity cost savings from energy efficiency measures to the present value of the installation costs, inclusive of any incidental repairs, of those energy efficiency measures.

Self-delivered program -- A program developed by a utility in an area in which customer choice is not offered that provides incentives directly to customers. The utility may use internal or external resources to design and administer the program.

Smart thermostat -- Smart thermostats are Wi-Fi thermostats that can be used with home automation and are responsible for controlling a home's heating, ventilation, and air conditioning.

Standard offer contract -- A contract between an energy efficiency service provider and a participating utility or between a participating utility and a commercial customer specifying standard payments based upon the amount of energy and peak demand savings achieved through energy efficiency measures, the measurement and verification protocols, and other terms and conditions, consistent with this section.

Standard offer program -- A program under which a utility administers standard offer contracts between the utility and energy efficiency service providers.

Static pressure -- Static pressure refers to the resistance to airflow in a heating and cooling system's components and duct work.

Texas Technical Reference Manual -- A compilation of deemed savings values approved by the Public Utility Commission of Texas (PUCT) for use in estimating savings for energy efficiency measures.

APPENDICES

APPENDIX

A. 2021 Reported Demand and Energy Reduction by County

Appendix A: Demand and Energy Reduction by County

	Commercial Load Management		Commercial Midstream MTP		Commercial SOP		Hard to Reach SOP		Home Energy Efficiency SOP	
County	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh
ANDERSON	62.89	188.7								
ANDREWS										
ANGELINA	183.54	550.6			32.00	266,152.9			181.54	344,352.0
ARCHER									13.58	23,987.0
BASTROP									2.03	5,384.3
BELL	3,369.94	10,109.7			360.47	1,571,458.4	548.99	820,600.6	358.97	706,317.6
BROWN					4.50	11,624.6				
CHEROKEE					6.50	54,100.0	258.26	467,498.4	11.32	20,790.5
CLAY									1.28	2,764.1
COLLIN	17,528.81	52,586.5	6.52	29,012.6	2,054.47	9,395,315.5	1,289.97	1,706,123.6	3,059.76	5,782,255.2
COMANCHE										
CONCHO										
COOKE	15.28	45.8			2.03	25,951.6			14.78	28,856.5
CORYELL					14.58	85,462.8	14.01	24,098.6	53.57	100,051.7
CRANE										
DALLAS	25,373.27	76,119.5	21.46	42,028.2	8,874.00	32,848,511.9	8,425.93	11,533,725.4	4,405.56	8,333,049.9
DAWSON										
DELTA										
DENTON	767.08	2,301.4	13.83	13,442.7	477.88	2,397,920.3	23.20	28,241.8	651.49	1,260,252.7
EASTLAND	4.33	13.0							60.37	119,700.2
ECTOR	148.79	446.4			2.16	12,110.8			32.09	62,451.9
ELLIS	139.66	418.9			263.98	1,761,056.0	841.22	1,384,500.7	329.00	664,822.8
ERATH									0.83	2,876.3
FALLS									1.02	1,671.4
FANNIN									1.22	2,568.2
FREESTONE									63.44	118,589.5
GLASSCOCK										
GLEN HEIGHTS										
GRAYSON	477.58	1,432.7			121.01	654,594.6	3.23	5,940.0	16.76	35,475.4
HENDERSON	69.69	209.1			15.23	61,270.9			83.41	162,566.4
HILL					1.30	7,332.0	0.26	521.7	1.72	3,686.7
HOOD									22.18	54,525.3
HOPKINS					104.37	460,774.7	2.98	5,257.6		
HOUSTON	1,077.71	3,233.2							17.60	33,266.4
HOWARD	19.07	57.2			1.52	8,566.5			7.52	13,991.2
HUNT					9.86	49,216.6	6.29	11,886.2	2.20	4,045.2
JACK									4.99	9,860.5

Appendix A: Demand and Energy Reduction by County

	Commercial Load Management		Commercial Midstream MTP		Commercial SOP		Hard to Reach SOP		Home Energy Efficiency SOP	
County	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh
JOHNSON	745.89	2,237.6			119.60	967,820.0	1.33	1,608.1	152.55	314,235.9
KAUFMAN	116.66	350.0			1,059.72	4,677,813.3	0.89	1,646.8	62.05	127,918.7
LAMAR	569.33	1,707.9			51.04	263,003.1				
LAMPASAS							0.58	1,121.1		
LEON					4.38	24,630.9				
LIMESTONE									30.50	54,548.2
MARTIN										
MCCULLOCH										
MCLENNAN	4,094.56	12,283.5			208.62	908,751.1	346.08	633,427.2	590.53	1,150,710.4
MIDLAND	857.54	2,572.6			207.13	913,022.2			53.34	98,505.7
MILAM									149.95	210,641.3
MITCHELL										
NACOGDOCHES					135.63	641,543.6			74.36	141,835.8
NAVARRO	3,169.76	9,509.3			16.39	92,047.4			19.00	33,547.4
NOLAN	5.66	17.0								
PALO PINTO	62.71	188.1							8.02	16,684.5
PARKER					0.98	5,505.3	1.87	3,456.8	168.62	339,164.2
PECOS										
RED RIVER										
ROCKWALL	687.90	2,063.7			211.86	954,920.5	1.91	2,958.2	148.53	294,529.3
RUSK	389.50	1,168.6								
SAN SABA										
SCURRY	175.82	527.5								
SMITH	115.18	345.5			201.23	957,004.0			26.56	53,473.6
STEPHENS									17.46	32,230.6
TARRANT	16,504.87	49,514.5			3,806.22	20,838,844.5	3,734.61	4,247,048.3	6,409.63	12,553,336.6
TRAVIS	43.96	131.9			73.25	421,005.7			129.55	245,420.2
TX										
VAN ZANDT					1.15	6,302.1			2.07	7,611.2
WARD										
WICHITA	352.76	1,058.2			54.64	267,125.7			151.69	286,920.2
WILLIAMSON	886.16	2,658.3			338.51	1,573,178.4			902.31	1,718,603.0
WINKLER										
WISE	50.26	150.8			166.14	823,010.2			17.45	37,299.0
YOUNG	58.91	176.7								
Total by Program	78,125.07	234,374.4	41.81	84,483.5	19,002.35	84,006,948.1	15,501.61	20,879,661.1	18,512.40	35,615,374.7

Appendix A: Demand and Energy Reduction by County

	Residential Load Management		Residential New Home Construction MTP		Retro-commissioning MTP		Small Business Direct Install MTP		Solar PV MTP (Residential)	
County	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh
ANDERSON	32.40	96.9								
ANDREWS	25.83	77.3								
ANGELINA	181.15	544.4					9.62	41,533.0	7.82	19,069.2
ARCHER	13.39	40.1					1.61	12,173.8	15.99	56,984.5
BASTROP	41.14	123.6	20.82	45,660.9					4.44	14,643.4
BELL	1,755.26	5,265.5	3.89	9,237.8			21.12	113,949.1	119.06	446,421.9
BROWN	48.31	145.0					1.77	12,326.4	1.59	6,338.3
CHEROKEE	52.16	156.5					41.21	130,325.7	12.83	32,524.4
CLAY	15.23	45.6							5.92	21,955.4
COLLIN	5,572.64	16,719.4	265.35	306,041.7					224.25	766,519.7
COMANCHE	14.65	44.0					3.80	31,414.6		
CONCHO	0.71	2.1								
COOKE	10.11	30.4					1.27	7,199.5		
CORYELL	200.89	603.1							6.80	21,781.6
CRANE	0.02	0.1								
DALLAS	10,655.20	31,965.7	148.85	159,680.7	0.00	330,162.0	61.11	242,871.5	199.26	694,607.7
DAWSON	18.22	54.6								
DELTA	-0.48	-1.4								
DENTON	1,818.41	5,455.3	101.50	107,587.3			0.99	3,542.9	42.36	156,007.4
EASTLAND	14.62	43.8								
ECTOR	639.67	1,919.0							54.63	198,145.9
ELLIS	1,011.34	3,032.9	16.79	30,062.8			49.56	301,039.2	51.83	167,966.4
ERATH	15.29	46.2					1.69	6,843.1		
FALLS	4.81	14.3					1.66	6,125.0		
FANNIN	22.61	67.7	1.72	4,346.9						
FREESTONE	28.72	86.2								
GLASSCOCK	2.46	7.4								
GLEN HEIGHTS	0.69	2.1								
GRAYSON	269.23	808.3					28.55	121,347.8	5.38	11,871.1
HENDERSON	115.77	347.6							5.80	19,451.6
HILL	36.50	109.5							1.97	7,519.8
HOOD	48.16	145.0								
HOPKINS	40.22	120.9					14.72	80,996.3	37.01	133,296.2
HOUSTON	4.08	12.3								
HOWARD	43.63	130.9								
HUNT	40.99	123.0							3.38	7,989.1
JACK	2.64	7.9					97.39	404,880.1		

Appendix A: Demand and Energy Reduction by County

	Residential Load Management		Residential New Home Construction MTP		Retro-commissioning MTP		Small Business Direct Install MTP		Solar PV MTP (Residential)	
County	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh
JOHNSON	502.36	1,507.2					12.40	51,123.8	4.24	23,109.1
KAUFMAN	260.12	780.2							18.63	55,738.1
LAMAR	60.18	180.6					0.82	3,325.4		
LAMPASAS	10.13	30.4								
LEON	3.69	11.0								
LIMESTONE	13.49	40.5								
MARTIN	4.17	12.6								
MCCULLOCH	-1.50	-4.6								
MCLENNAN	693.88	2,081.6					55.25	317,157.4		
MIDLAND	841.50	2,523.7					4.00	17,288.0		
MILAM	19.24	57.8								
MITCHELL	7.15	21.5								
NACOGDOCHES	69.86	209.3							10.30	38,846.3
NAVARRO	62.91	189.0					1.96	7,622.0		
NOLAN	22.56	67.6								
PALO PINTO	32.19	96.4					1.77	7,481.3		
PARKER	199.16	596.8							18.34	64,491.9
PECOS										
RED RIVER	1.34	4.0								
ROCKWALL	632.03	1,895.9	93.66	109,057.7					21.89	58,846.2
RUSK	-0.39	-1.2								
SAN SABA	0.73	2.2								
SCURRY	24.88	74.8								
SMITH	688.33	2,063.7					51.26	237,412.5	9.74	32,194.0
STEPHENS	15.67	47.0								
TARRANT	10,608.77	31,827.2	201.31	233,262.9			54.88	227,202.0	238.25	815,935.7
TRAVIS	565.93	1,698.5	14.22	26,123.9			1.97	7,131.0	96.12	334,390.1
TX										
VAN ZANDT	22.88	68.8							10.39	31,190.1
WARD	43.79	131.3							3.83	14,979.6
WICHITA	379.95	1,139.3					192.69	847,666.1	50.13	149,770.5
WILLIAMSON	2,078.37	6,235.1	108.01	217,882.4			5.68	34,561.5	177.82	601,227.2
WINKLER	0.11	0.3								
WISE	54.72	164.3					23.43	101,172.8		
YOUNG	23.86	71.2					7.80	28,439.9		
Total by Program	40,738.73	122,217.2	976.12	1,248,945.0	0.00	330,162.0	749.98	3,404,151.7	1,460.00	5,003,812.4

Appendix A: Demand and Energy Reduction by County

	Solar PV SOP (Commercial)		Targeted LIW		Retail Products Program MTP		Total kW by County*	Total kWh by County*
County	kW	kWh	kW	kWh	kW	kWh		
ANDERSON	131.13	421,508.3	139.12	260,538.7		5,024.0	365.54	687,356.6
ANDREWS			1.56	2,676.2		5,024.0	27.39	7,777.5
ANGELINA						17,584.0	595.67	689,786.1
ARCHER							44.57	93,185.4
BASTROP						6,280.0	68.43	72,092.2
BELL			140.82	245,346.6	1,069.69	5,299,342.6	7,748.21	9,228,049.8
BROWN			145.43	283,232.2		3,768.0	201.60	317,434.5
CHEROKEE	23.18	74,250.3				7,536.0	405.46	787,181.8
CLAY						1,256.0	22.43	26,021.1
COLLIN	177.02	495,242.0	5.08	8,269.0	4,852.21	24,063,061.9	35,036.08	42,621,147.1
COMANCHE						1,256.0	18.45	32,714.6
CONCHO							0.71	2.1
COOKE	10.59	29,912.9	14.61	26,732.7		1,256.0	68.67	119,985.4
CORYELL			4.04	7,175.6		8,792.0	293.89	247,965.4
CRANE							0.02	0.1
DALLAS	442.71	1,374,638.4	1,526.07	2,813,005.5	8,238.38	41,044,499.3	68,371.80	99,524,865.7
DAWSON			9.23	12,425.7		2,512.0	27.45	14,992.3
DELTA						1,256.0	-0.48	1,254.6
DENTON			9.78	17,245.1	522.58	2,736,109.1	4,429.10	6,728,106.0
EASTLAND						1,256.0	79.32	121,013.0
ECTOR	21.22	93,520.4	3.89	4,717.5	481.63	2,348,115.3	1,384.08	2,721,427.2
ELLIS	91.28	337,997.0			387.53	1,926,228.8	3,182.19	6,577,125.5
ERATH						3,768.0	17.81	13,533.6
FALLS			0.59	761.4			8.08	8,572.1
FANNIN			5.31	9,130.3		7,536.0	30.86	23,649.1
FREESTONE			5.44	9,680.3		6,280.0	97.60	134,636.0
GLASSCOCK							2.46	7.4
GLEN HEIGHTS							0.69	2.1
GRAYSON			26.79	40,301.9		40,192.0	948.53	911,963.8
HENDERSON						17,584.0	289.90	261,429.6
HILL					33.55	162,057.1	75.30	181,226.8
HOOD						2,512.0	70.34	57,182.3
HOPKINS	205.28	632,943.3	3.89	6,914.8	96.05	461,869.0	504.52	1,782,172.8
HOUSTON							1,099.39	36,511.9
HOWARD			67.70	130,576.4	66.48	319,469.7	205.92	472,791.9
HUNT			0.01	41.0	21.44	110,110.6	84.17	183,411.7
JACK							105.02	414,748.5

Appendix A: Demand and Energy Reduction by County

	Solar PV SOP (Commercial)		Targeted LIW		Retail Products Program MTP		Total kW by County*	Total kWh by County*
County	kW	kWh	kW	kWh	kW	kWh		
JOHNSON	33.08	98,743.9			511.90	2,477,547.5	2,083.35	3,937,933.1
KAUFMAN	58.52	196,549.8			315.01	1,529,867.7	1,891.60	6,590,664.6
LAMAR			18.74	29,926.2		1,256.0	700.11	299,399.2
LAMPASAS							10.71	1,151.5
LEON							8.07	24,641.9
LIMESTONE						2,512.0	43.99	57,100.7
MARTIN							4.17	12.6
MCCULLOCH						1,256.0	-1.50	1,251.4
MCLENNAN	10.49	31,458.2	548.02	1,091,980.1	788.54	3,872,216.7	7,335.97	8,020,066.2
MIDLAND			1.67	1,965.6	476.04	2,348,918.1	2,441.22	3,384,795.9
MILAM	21.19	96,060.1	3.13	4,055.8		1,256.0	193.51	312,071.0
MITCHELL							7.15	21.5
NACOGDOCHES			90.87	161,783.7		18,840.0	381.02	1,003,058.7
NAVARRO	67.20	224,280.8			172.31	829,306.5	3,509.53	1,196,502.4
NOLAN			0.50	526.5	35.68	170,794.0	64.40	171,405.1
PALO PINTO	70.84	212,921.6			33.46	161,816.9	208.99	399,188.8
PARKER						22,608.0	388.97	435,823.0
PECOS						1,256.0		
RED RIVER			0.66	647.3			2.00	651.3
ROCKWALL			5.49	9,944.5	1,014.23	4,919,101.2	2,817.50	6,353,317.2
RUSK			24.88	44,256.0			413.99	45,423.4
SAN SABA					0.00	1,256.0	0.73	1,258.2
SCURRY							200.70	602.3
SMITH	18.03	60,024.5			749.89	3,677,567.7	1,860.22	5,020,085.5
STEPHENS	39.45	117,569.7				1,256.0	72.58	151,103.3
TARRANT	489.98	1,599,254.6	344.45	623,940.2	7,059.68	34,950,627.2	49,452.65	76,170,793.7
TRAVIS					289.45	1,537,809.1	1,214.45	2,573,710.4
TX					1,076.91	5,172,697.2	1,076.91	5,172,697.2
VAN ZANDT	35.67	99,100.3				1,256.0	72.16	145,528.5
WARD							47.62	15,110.9
WICHITA	91.62	328,905.2	103.11	182,054.9	425.53	2,087,945.4	1,802.12	4,152,585.5
WILLIAMSON	37.07	120,743.0			693.11	3,672,401.6	5,227.04	7,947,490.5
WINKLER							0.11	0.3
WISE	50.37	167,484.2				7,536.0	362.37	1,136,817.3
YOUNG						5,024.0	90.57	33,711.8
Total by Program	2,125.92	6,813,108.5	3,250.88	6,029,851.7	29,411.28	146,085,464.2	209,896.15	309,858,554.5

APPENDIX

B. Program Templates

Winter Commercial Load Management (Pilot)
Strategic Energy Management MTP (Pilot)
LIW HVAC Tune-Up MTP (Pilot)

Oncor Winter Emergency Load Management Pilot Program

PROGRAM OVERVIEW

Description

The Winter Emergency Load Management Program (Program) provides incentives to program participants (Participants) for curtailing electricity demand when requested by ERCOT, and during ERCOT emergencies. Participants include commercial customers, Retail Electric Providers (REPs), and commercial aggregation groups. The Program will operate December 1 of the current program year through the last day in February of the following year (Program operating period). Participants must be available to curtail 24 hours a day, seven days a week, and be capable of curtailing load within 30 minutes notice. The minimum load reduction that may be subscribed in the Program is 100 kW.

Program savings are determined using the load management calculations in the Texas Technical Reference Manual (TRM). A baseline load management test will be conducted to demonstrate that the participant is capable of curtailing load, and to establish the baseline demand reduction. The contracted demand reduction (Obligation) will be based on the load management test result, available Program budget, and Program goals. Participants must curtail a minimum of 90% of their Obligation across all events to be eligible for payment. Final Program payments are determined by established Program rules and TRM calculations.

Rationale

The Program seeks to support grid resiliency by providing winter load reduction capabilities in the commercial market. Additionally, the Program addresses the requirements of Senate Bill 3 and is designed to comply with 16 Tex. Admin. Code § 25.181 (TAC) relating to the Energy Efficiency Goal implementing § 39.905 of the Public Utility Regulatory Act (PURA).

Program Objectives

The primary objective of this Program is to achieve reliable, cost-effective demand reduction to support ERCOT during the winter peak season. Additional objectives of the Program are to:

- encourage involvement by a wide range of Participants, including REPs.
- Streamline Program processes to improve event notification protocols, data analysis, and Participant payments.
- Evaluate TRM calculations and propose changes to encompass winter and 24/7 operations.

PROGRAM PRICING

Program Goals and Budget

The Program seeks to achieve 35 MW in load reduction during the Winter operating period, with a budget of \$1.4 million.

Pricing Structure

Standard incentives are offered for demand savings, based on TRM calculations. Incentive payments shall not exceed current avoided costs and the Program is required to be cost-effective.

ELIGIBILITY

Participant

All Oncor commercial customers who have not opted out of the EECRF tariff, are eligible to participate. Additionally, REPs and aggregation groups may participate by enrolling a portfolio of eligible commercial customers in the Program. Each Participant must subscribe a minimum of 100 kW of load reduction to be eligible in the Program. Critical load and customers participating in other load management programs, such as ERS are ineligible. Eligibility is determined at the ESIID level.

Measure

Participants must be capable of curtailing their Obligation within 30 minutes of notification. Events may be called at any time during the Program operating period. Oncor may call a maximum of six events during the Program operating period, with any single event lasting no more than 12 hours.

MEASUREMENT AND VERIFICATION

Purpose

Measurement and verification through Oncor's automated metering system (AMS) is used to verify Participant load reduction and to calculate the Participant payment.

Responsibility

Oncor Energy Efficiency will work with Oncor Metering to acquire AMS data. Metering may be required to ping meters or dispatch technicians to acquire incomplete meter data. EE will analyze the AMS data and calculate load reduction based on TRM calculations.

Approach

Measurement and verification is completed by acquiring AMS meter data, identifying and resolving incomplete data, and completing calculations in accordance with the TRM. Savings are verified by a second individual, separate from the individual completing the initial calculations.

Inspection Procedures

No onsite inspections are required in the Program. Savings calculations, analysis results, and Participant savings and payments may be verified by the Texas State Evaluator.

PROGRAM PROCESS

Application

Potential project sponsors must complete an application to participate in the program. The application provides evidence of qualifications and identifies the participating ESIIDs. Submitted ESIIDs will be compared to the Oncor critical load and ERCOT ERS lists to ensure eligibility. Additionally, the Participant submits a load curtailment estimate as part of the application. Applications will be accepted on a first-come, first-served basis.

Participation

A test event will be held and participants are required to demonstrate that they can curtail load. Oncor will determine the response of each participant using AMS data and the TRM load

management calculations. The Participant contract Obligation will be established based on performance during the test event, total program curtailment and available budget.

Any actual events called by ERCOT during the operation period will be evaluated using automated meter data and compared to the contracted Obligation. Participants must maintain an average curtailment of 90% of contracted Obligation across all events to receive payment.

Payment

At the end of the Program operating period, Oncor will analyze Participant response across all events and determine if the average response is at least 90% of the contract Obligation. If the Participant qualifies, Oncor will calculate the incentive payment based on current Program rules and incentive levels. In the absence of events beyond the test event, or if events are called outside the existing parameters of the TRM, the customer payment will be based on their baseline Obligation. The specific scenarios will be logged, and Oncor will work with the State Evaluator to address them in the TRM prior to opening the Standard Offer Program in December 2022.

Regulatory Requirements

Oncor will provide ERCOT and participant's Rep of record information on participant's participation of the program, time and date of test event and actual curtailed demand. Oncor continues to work with ERCOT to ensure that there are no duplication of program participants with the ERCOT and Oncor program. In addition, participants of the program are tracked against Oncor's critical load list as participants that is part of the critical load list will be removed from the program.

PROGRAM PROMOTION

Oncor will reach out directly to large commercial customers, aggregation groups, and Retail Electric Providers (REPs) to recruit participants. Additionally, Oncor will work internally with the Large Account Management organization to offer the Program to managed accounts.

PROGRAM SAVINGS DETERMINATION

Program savings determination is calculated as the sum of the paid kW for all Participants. Oncor will also report any additional Program savings achieved but not paid. This additional savings will not be claimed toward Oncor's energy efficiency goals.

PILOT PROGRAM

The Program is a pilot program. Several unique scenarios exist when implementing a 24 hour a day, 7 days a week program in the commercial market. Events may occur at any time, and facilities may be closed or transitioning between shifts, etc. The TRM calculations may not accurately depict actual events. Oncor will work closely with the State Evaluator to adjust TRM methodologies ensuring that 24/7 operations and winter savings determinations are accurate. As Oncor refines the program design, the operating hours, number of events, and event duration may change, prior to implementation.

As a pilot program, Oncor will test several aspects of the Program:

- demonstrate Program load reduction capabilities during the winter season;

- test the Program design, outreach and participant recruitment, program rules, data collection methodologies, and effectiveness of TRM calculations during the winter season;
- identify any issues with participant compliance and sustainability throughout the winter season;
- identify the commercial measures that provide significant load reduction during winter months; and
- provide a basis for Program claimed savings, net benefits, and cost recovery.

Oncor will use Program findings and lessons learned to prepare a Standard Offer program beginning in December 2022.

Oncor Strategic Energy Management Program (MTP) Pilot

PROGRAM OVERVIEW

Description

The Strategic Energy Management (SEM) MTP Pilot (Program) provides technical support, customer coaching and financial project incentives to program participants (Participants) for commercial, industrial and agricultural customers. The program uses an Energy Concierge approach for customers with under 5 MW demand that uses key elements of SEM, like Treasure Hunts and Energy Action Plans, to engage customers in projects and to encourage a continual improvement approach. For larger customers with greater than 5 MW demand, the program uses a full SEM approach to teach the customers the elements of SEM and coaches them to implement continual improvement organizational changes. This program provides specific assistance in uncovering and supporting operational efficiency improvements.

Because the SEM program provides a comprehensive approach to all types of projects including capital and operational projects, the program offers incentives for all types of projects. The main three incentives offered are for standard capital measures, operational projects (\$0.02/kWh) and custom capital projects (\$0.10/kWh). Program savings are determined for standard measures using the TRM. Program savings for operational and custom measures use available data to calculate or measure a difference in energy use before and after the measure is implemented.

Rationale

The Program seeks to provide a comprehensive approach to capture all types of energy saving projects for customers in the commercial, industrial and agricultural sectors. In addition, the Program is designed to comply with 16 Tex. Admin. Code (TAC) § 25.181 relating to the Energy Efficiency Goal implementing Public Utility Regulatory Act (PURA) § 39.905.

Program Objectives

- Provide a comprehensive umbrella approach for commercial, industrial and agricultural customers to impact all types of energy efficiency measures and opportunities
- Transform the business market by coaching and training customers to develop a continual improvement approach to energy management
- Provide very cost-effective savings for the Oncor portfolio

PROGRAM PRICING

Program Goals and Budget

The program seeks to achieve 1,145 kW and 16,709,700 kWh in 2022. The program budget is \$1,071,511.

Pricing Structure

Standard incentives are offered for demand savings, based on the Texas TRM calculations. Incentive payments shall not exceed current avoided costs and the Program is required to be cost-effective.

ELIGIBILITY

Participant

Oncor large commercial customers who have not opted out of the EECRF tariff, are eligible to participate.

Measure

The following key measures are a part of the program:

- Lighting Retrofit
- Lighting Control
- Refrigeration
- HVAC
- HVAC controls
- Compressed Air
- Compressed Air Optimization
- Process Optimization
- Custom Projects

MEASUREMENT AND VERIFICATION (M&V)

Purpose

The purpose of the M&V is to verify the saving from the measures the customer implements. The comprehensive approach of the program requires that the M&V process be adaptable to the various types of energy saving measures. M&V for savings of standard projects that are part of the TRM, the M&V process for these measures will follow the calculations laid out in the TRM. M&V for savings from operational and custom measures that are not a part of the TRM will use the available data and standard engineering calculations to develop a baseline and performance period to determine savings from the project.

Responsibility

Contractor is responsible for ensuring savings collection and data and input into EEPM

Approach

The approach to the M&V will depend on the type of project implemented. For standard measures the deemed savings will be used. For operational and customer measures the approach is to use available data from the site and potentially additional standard engineering calculations to estimate energy savings from a baseline and performance period.

Inspection Procedures

The inspection process will verify the type, quantity and performance of existing and new systems. This includes taking pictures of equipment, systems and nameplates of the existing and new equipment or process. The inspection report will summarize the pre and post savings.

PROGRAM PROCESS

Application

This program requires a formal recruitment process since the program requires a longer-term commitment from the participants. The recruitment process is to develop a program factsheet and program application that requires an Energy Champion signature and Executive Sponsor signature. If a customer was interested in learning more, the program provided a 30-minute presentation of the program details to the customer. The customer then decidea on whether they wanted to sign the application and participate.

Participation

Once a customer signed the application, kick-off meetings are held with the teams from the customer and implementation contractor provides weekly to biweekly continual meetings to develop project ideas and Action Plans. Once Action Plans are completed there is an incentive from the program paid to the customer.

Payment

The payment of incentives are based on either standard incentives for standard measures or based on actual energy savings from operational or custom projects once post site inspections are completed.

PROGRAM PROMOTION

Program promotion is primarily driven through an outreach campaign to the Oncor account managers which included a program information as well as a program fact sheet.

PROGRAM SAVINGS DETERMINATION

The savings is based on available system data and standard engineering calculations that determine the pre and post energy use and demand differences.

PILOT PROGRAM

The Strategic Energy Management and Energy Concierge program is a comprehensive program for business customers to impact all types of capital and operational energy efficiency measures and to build organizational capabilities for a continual improvement approach to energy management.

LIW HVAC Tune-Up MTP (Pilot)

PROGRAM OVERVIEW

Description

The LIW HVAC Tune-Up MTP (Pilot) is designed to overcome market barriers that prevent low income residential customers from receiving high performance air conditioning system tune-ups. The program offers air conditioning system tune-ups to qualified customers at no cost to help reduce the utility payment burden most low-income customers' face during the summer months.

Rationale

The Program seeks to provide energy savings to hard-to-reach customers and allow for the availability of this measure at little to no additional cost to the customer. In addition, the Program is designed to comply with 16 Tex. Admin. Code (TAC) § 25.181 relating to the Energy Efficiency Goal implementing Public Utility Regulatory Act (PURA) § 39.905.

Program Objectives

The Program focuses on training participating contractors on industry best practices through the use of the Program toolkit, and how to apply these practices in the marketplace. The Program focuses on:

- Cost-effective electricity savings through the use of local contractors
- Addressing market barriers that hinder the adoption of energy efficient technologies and practices:
 - Lack of easy access to qualified vendors and installers
 - Lack of awareness of benefits of properly-tuned air conditioning systems
 - Lack of awareness of energy and cost savings due to properly operating A/C systems
- Training and supporting a group of participating contractors capable of providing high performance A/C and heat pump system tune-up and installation services in the market
- Paying incentives to A/C contractors for the successful implementation of A/C tune-up Services.

PROGRAM PRICING

Program Goals and Budget

The program seeks to achieve 877 kW and 3,690,000 kWh, with a budget of \$525,040.

Pricing Structure

Standard incentives are offered for the completion of a verified Tune-Up. Demand savings are achieved through the Tune-Ups and calculated based on Texas TRM approved methodology. Incentive payments shall not exceed current avoided costs and the Program is required to be cost-effective.

ELIGIBILITY

Participant

The pilot focuses on hard-to-reach customers that qualify under the low income validation methods as prescribed in the Texas TRM volume 5.

Measure

Residential Air Conditioner and Heat Pump Tune-ups Measure listed in the Texas TRM volume 2.

MEASUREMENT AND VERIFICATION**Purpose**

The measure will utilize the deemed savings methodology as listed in the Texas TRM volume 2.

Responsibility

Program Sponsor:

- Provide customer database to allow implementer to verify the eligibility of program participants
- Provide the implementer with the necessary incentive funds
- Oversee the Program Implementer

Program Implementer:

- Plan and design the Program
- Market the Program to customers and contractors
- Approve customer eligibility and enrollment
- Recruit, train, and mentor participating contractors
- Process qualifying coupons and rebates
- Maintain a database of all necessary program information
- Conduct quality control and quality assurance activities
- Assist participating contractors in procuring Program toolkit(s)

Program Participant (Customer):

- Provide the Program with the necessary account information to determine participation eligibility
- Choose a participating contractor from the approved contractor list to install eligible measures
- Allow the implementer access the residence or business to verify installed measures (where applicable)

Participating Contractor:

- Complete program required training and adhere to program guidelines outlined in the Program Manual
- Respond to customer requests in a professional and timely manner
- Perform A/C and Heat Pump system tune-ups or replacements at qualifying customer sites and submit appropriate documentation with each application
- Perform all work to the required standards of the Program
- Submit required project information and supporting documentation in order to receive financial incentives
- Provide qualifying customers with an instant on-the-spot discount/rebate for services rendered (amount should be equal to the incentive amount each project is eligible for and appear as a line item on the invoice for qualifying services).

Approach

Contractors will use a proprietary application to submit tune-up data into the program's interactive online database. The application is free for download and use and serves as a data collection form as well as a savings diagnostic tool, providing real-time feedback on the performance of the A/C unit based on the performance data entered by the HVAC technician.

Inspection Procedures

Statistically significant percentage of projects (estimated at five to eight percent) submitted by program-enrolled contractors selected randomly will be inspected. In addition, automated error checks are incorporated into the program applications and the program's project database. Furthermore, the program implementer will review and process 100 percent of the completed applications, isolating any documentation deficiencies or engineering issues prior to approval of an incentive.

PROGRAM PROCESS

Application

The participation process begins either with a customer choosing a Participating Contractor to perform an A/C Tune-up on their HVAC system, or a Participating Contractor soliciting and scheduling a customer for a tune-up. Contractors not yet participating in the Program are welcome to enroll if they meet the requirements and complete the necessary training and toolkit acquisitions of the Program. All contractors must be enrolled and complete program-required training before performing any tune-ups on any systems they wish to be included in the Program.

Participation

The Participating Contractor performs the evaluation on the customer's system and discusses high performance tune-ups. Once a tune-up has been completed for a customer, the discount is applied to the customer invoice, completing the customer's participation, unless optional QA/QC verification is implemented. If the tune-up project is selected for a QA/QC review, program implementer will make direct contact with the customer to verify the system was serviced according to the Program requirements.

Payment

Once funded by the project sponsor the Program implementer issues incentives to the participating contractor and represented as a discount on the final invoice presented to customers.

PROGRAM PROMOTION

Program implementer will use contractors as the primary sales force for the A/C Tune-up program. Program implementer will use low-cost, effective channels to target eligible customers, encouraging them to contact HVAC contractors. Program implementer's marketing approach for the program includes:

- Marketing the program through contractors
- Working with existing low-income weatherization program participants
- Marketing the programs through market allies
- Collaborate with Oncor on marketing campaigns.

PROGRAM SAVINGS DETERMINATION

In 2023, the Program will use the combination of the approved modeled Tune-Up savings methodology, and the M&V Protocol as described in section 2.1.1 of the most recent Texas TRM version.

PILOT PROGRAM

The Program primarily focuses on improving the energy efficiency of the HVAC systems of Hard to Reach residential customers within the Oncor service territory by training participating contractors on industry best practices using the Program toolkit, providing incentives to customers to help pay for the system corrections and upgrades, and ensuring that these systems are correctly installed.

APPENDIX

C. List of 2021 Energy Efficiency Service Providers

Commercial Midstream MTP

ICF Resources LLC

Commercial Load Management

Amerex Brokers LLC
Bank of America
Bridgevue Energy Services, LLC
Cenveo Corporation
Dal-Tile Corporation Inc.
Dorskocil Manufacturing Company, Inc.
Enel X North America Inc.
Enerwise Global Technologies, Inc. DBA CPower
General Services Administration
L5E, LLC
Links EP LLC
MP2 Energy, LLC
NCH Corporation
North Texas Municipal Water District
NRG Curtailment Solutions Inc.
Palm Energy, LLC
Target Corp
Tierpoint Texas LLC
Voltus, Inc.

Commercial Solar PV SOP

1 Solar Solution, LLC
4Q Power, Inc.
Alba Energy LLC
Allegiance Solar, LLC
Ameresco Dallas, LLC
Arka Farms LLC
Awake Solar, LLC
Axiom Solar Inc.
Byrd electric
Cam Solar, Inc.
Circle L Solar
City of Dallas
Claud Elsom DBA North Texas Solar
CMS Renewable
CRsolar Energy Solutions / CR-Invent LLC
Davis Electric Co.
DFW SOLAR ELECTRIC, LLC
DKD Advertising
East Wilco 95, LLC
Eastex Solar LLC
Electric Distribution & Design Systems
Empire Solar Group LLC
Ennis Products, Inc.
Epic Electrical Contractors
Escape 2 Renewables Inc.
Freedom Solar LLC
Good Faith Energy
Greenbelt Solar LLC
Greenhouse Solar LLC, DBA Infinity Solar
GreenLife Technologies, Inc.
Holt Renewables LLC
IES Residential
Infinity Solar Solutions LLC

James Showalter
Kosmos Solar
Lighthouse Solar Austin
Longhorn Solar
Midstate Energy, LLC
Native Inc.
Nia Power LLC
Peak Power Partners
Rich Construction & Service LP
RISE power, LLC
RonRush Investment DBA Universal Solar System
S&H Solar & Electric, LLC
Saibagavan Commercial Investment LLC
Self Reliant Solar LLC
Silver Electric and Solar
Solar CenTex LLC
Solar SME, Inc.
Solarize LLC
Solartime USA LLC
Solarugreen Corporation
Solergy, LLC
Spectrum Contractors LLC
Speir Commercial and Industrial
Spektra, LLC
Sun City Solar Energy-North Texas LLC
Sunfinity Solar-TX, LLC
Sunshine Renewable Solutions
Texas Solar Guys LLC
The Energy Shop, Inc.
Thompson & Son Energy Solutions LLC
Tower Association Crue
W Energies Group Solar One, LLC
Wells Solar & Electrical Services LLC
West Texas Solar, LLC
Wright-Way Solar Technologies, LLC

Commercial SOP

24 Hour Ltd.
7-Eleven Inc.
A1 Electrical Services Inc.
Advanced Energy Innovations Inc.
AEP Electrical Contractors Inc.
Air Conditioning Innovative Solutions, Inc.
Air Performance Service, Inc.
Ala LLC
Ally Energy Solutions, LLC
Ameresco Dallas LLC
American Wholesale Lighting Inc.
Amos Electric Supply, Inc.
Angiel Electrical Construction Corporation
Aquila Environmental LLC
Aries Corporation
Bambu Energy
Beckett Electrical Services LLC
Benchmark Group Inc.
Better Than Lights
Big Shine Worldwide Inc.
Boxer Property Management Corp.
Bridgevue Energy Services, LLC

BriteSwitch, LLC
 Budderfly, Inc.
 Burlington Coat Factory of Texas
 Burton Energy Group LLC
 Cable Electric Inc.
 Cain Electrical Supply
 Campbell Electric TX, LLC
 Cash Flow Energy Solutions Corporation
 CEC Facilities Group, LLC
 Centrica Business Solutions Services Inc.
 Chateau Energy Solutions LLC
 Christ United Methodist Church
 City of Dallas
 City of Killeen
 Cole Air Conditioning Company Inc.
 Contemporary Energy Solutions
 cVal Innovations LLC
 Dalkia Energy Solutions LLC (formerly Groom)
 Dallas County Community College District
 DeSoto Janitorial Supply, Inc.
 DFW LED Lights LLC
 Dunrite HVAC Services Inc.
 E3 Integral Solutions Inc.
 Eco Engineering
 Efficient Lighting Consultants
 Efficient Power Tech LLC
 Encore Wire Corporation
 EnerChoice LLC
 Energy Audits of Texas
 Energy Management Collaborative, LLC
 Energy Solutions of Texas
 EnerNet Solutions LLC
 ENGIE INsight Services Inc. (FKA Ecova Inc.)
 Enoch Electric LLC
 Entech Sales & Service
 EnerChoice LLC
 Equinix, LLC
 Estes, McClure & Associates, Inc.
 Expert Services, LLC
 Facility Solutions Group
 Fairbanks Energy Services Inc.
 Ferrara's Heating and Air Conditioning
 Forrest Williams
 General Services Administration
 Graybar Electric Company, Inc.
 Green Light National LLC
 Greenleaf Energy Solutions LLC
 H & H Sign Co. Inc.
 Hargis Electric LLC.
 Heat Transfer Solutions, Inc.
 HEB Grocery Company, LP
 HM & MF LTD, DBA Muckleroy & Falls
 Home Improvement Systems, Inc.
 Intex Electrical Contractors Inc.
 Jacobs-Cathey/Perryman, Inc. DBA Jacobs-Cathey Company
 JKD Construction Company Inc. DBA Mr. E
 Electric of Grand Prairie
 Johnson Controls Inc.

Just Energy New York Corp.
 Kevco Electrical Construction, Inc.
 Killeen Independent School District
 Kohl's Department Stores, Inc.
 LSE, LLC
 Landlord Utility Management LLC DBA JEC Energy Savings
 LED of Houston
 LED Solutions, LLC
 LED Supply Co.
 Levior Energy LLC
 Lighting Expertise and Design Services, LLC
 Lighting Services, Inc.
 LightSource Unlimited
 Lime Energy Services Company
 Lochridge-Priest, Inc.
 Loloi Inc.
 Lowe's Home centers, Inc.
 Maintenance Resource, Inc.
 McDill's I&E Specialist LLC
 Methodist Hospitals of Dallas
 Mid-American Gunitite, Inc.
 Motion Industries, Inc.
 National Retrofitting Group, LLC
 Negawatt Partners, LLC
 NexRev, Inc.
 Next Step Energy Solutions
 Niagara Bottling, LLC
 On-Site Lighting & Survey LLC
 Pacific Energy Concepts LLC
 PBK Architects, Inc.
 Peak Power Partners
 Plano Independent School District
 Polaris LED
 ProSource Power LLC
 Putnam Air & Electric, LLC
 Realterm Energy US, LP
 Rebate Bus, LLC
 Redaptive Services, LLC
 Retro-Tech Systems, LLC
 Rexel Holdings USA Corp.
 Rich Construction & Service LP
 Richardson ISD
 Ritran Inc.
 ROI Energy Investments LLC
 San Miguel and Associates, Inc.
 Saving Energreen Houses, LLC
 Shelton Companies Inc
 Sitelogiq
 SLS Energy Solutions
 Solis
 Southwest Christian School, Inc.
 Spark Lighting, LLC
 SPF Facility Services, LLC
 Spindletop Oil & Gas Co.
 Stacks Corporation
 Steve Silver Company
 Summit Energy Services, Inc.
 Sundog LED, LLC
 Target Corp

TDIndustries
 Technical Consumer Products
 Texas AirSystems LLC
 Texas Maintenance Solutions
 Texas Tech University Health Sciences Center
 Texas Turnkey Energy Solutions, LLC
 Titan LED, Inc.
 Topaz Asset Management LP
 Trane
 Transformative Wave Technologies
 Tri-State LED
 TXU Energy Retail Company LLC
 Unified Sunergy Systems LLC
 Vanguard Building Solutions, LLC
 Vivid Energies Corp.
 Voss Lighting
 Walgreen Co.
 Waypoint Lighting LLC
 WESCO Distribution, Inc.
 Wicklow Magnolia, LLC
 WLS Lighting Systems
 Wylie Independent School District

Retro-commissioning MTP

Michaels Energy, Inc.

Home Energy Efficiency SOP

1st Choice Air Solutions, LLC
 1st Response AC & Heating, Inc.
 22October Corp.
 5 Star HVAC Contractors
 A#1 Air, Inc.
 A&E Home Insulation
 A-Anderson Air, Inc.
 ABC Heating & Air Conditioning, Inc.
 ABC Pest Control of Austin Inc. DBA ABC Home &
 Commercial Service
 ABC Pest Control of DFW Inc.
 Absolute HVAC LLC
 AC & Heat Solutions LLC
 Adams Air Conditioning
 Adon Complete Property Solutions
 Advent Air Conditioning Inc.
 AGES Consulting, LLC dba Alternative Green
 Energy Solutions
 Aguilar's Heating & Air
 Air Advantage, Inc.
 Air Clinic Air Conditioning and Heating Inc.
 Air Patrol Air Conditioning
 AirCo Ltd.
 Airco Mechanical, Ltd.
 Aire Care Metro Energy Savers, Inc.
 Aire Texas Residential Services Inc.
 Airmasters Heating & AC Inc.
 Airview A/C & Heating
 Alamo Austin Air
 All Tech Services, Inc.
 American Air & Heat Co., Inc.
 Amerson Ventures LLC

Area Wide Services, Inc.
 Arthur Hagar Corp.
 Astar Heat and Air Inc.
 Awesome Air & Heat Service
 Baker Brothers Plumbing & Air
 Bell County Universal Service
 Berkeys LLC
 Better Than Lights
 Big D Aire LLC
 Bill Cody and Sons Plumbing Company, LLC
 Bill Joplin's Air Conditioning and Heating
 Billygo DFW LLC
 Blizzard Air
 Bock Services LLC
 Bolt Hold Co II Service Experts
 Bon Air Service Co. Inc.
 Bradley Air Conditioning
 Burnside Air Conditioning, Heating and Indoor Air Quality
 Chrome Heating & Air Conditioning, LLC
 CityLine Air Conditioning LLC
 Cody Moreno
 Cole Air Conditioning Company Inc.
 Compass Air Services, Inc.
 Complete Cool Air
 Cool Tech Mechanical
 Coomes Air Conditioning & Heating Service Inc.
 Cotes Mechanical
 Coventry & Gattis Air Conditioning, Inc.
 Crawford Services
 D & R Insulation
 D T Air Conditioning & Heating Inc.
 D. Penguin Services, Inc.
 Dallas Air Solutions
 Dallas Insulation LLC
 Dallas Plumbing Company
 Danco Comfort Services
 David Kampfhenkel
 DFW Metro Air Conditioning LLC
 Dial One Johnson Plumbing, LLC
 Domani Comfort Partners LLC
 DR Energy, LLC
 Dragon Air Services LLC
 Dunrite HVAC Services Inc.
 Ecoenergy Conservation Group, LLC
 Ellis Air LLC
 ElstonAire, Inc.
 EnerChoice LLC
 Energy Audits of Texas
 Energy Program Partners LLC
 Enoch Electric LLC
 Evenaire LLC
 Evergreen Heating and Air, Inc
 Extreme Comfort Air Conditioning & Heating, LLC
 Extreme Mechanical Service Inc.
 Ferguson Veresh Inc.
 Firehouse Heating and Air
 Forney Air LLC
 Forrest Williams
 Freedom Heating & Air LLC

Frymire Home Services
 Garza & Sotka Enterprises LLC dba Air Masters
 Glenn Aire Company
 GNS Energy Efficiency
 Gorman Mechanical, Inc.
 Green Leaf Corporation
 Gregg Air LLC
 Hargrove-Neel, Inc.
 Harris Air Services, LLC
 Hart HVAC
 Hightower Service, Inc.
 Hobson Air Conditioning Inc.
 Home Improvement Systems, Inc.
 Honest Air Conditioning LLC
 Hood Service Company LLC
 Houk Air Conditioning Inc.
 HSA, LLC
 Hufsey Mechanical Inc, DBA One Hour A/C and Heating
 Hunter Super Techs Service Corporation DBA Sunny Service
 Infinity Texas Mechanical Inc.
 Intelligent Air Services, LLC
 J & J Air Conditioning, Inc.
 Jacobs-Cathey/Perryman, Inc. DBA Jacobs-Cathey Company
 JAK Services
 James Lane Air Conditioning Company Inc.
 Johns Heating & Air Conditioning
 Jomira LLC
 K Saunders Company
 K&S Heating and Air Conditioning Corp.
 KCG Enterprizes, LLC
 Keller Heating and Air Conditioning Services, LLC
 LaRu Energy Solutions DBA Air Conditioning Pros
 Lu and Sons
 M. Brown Service Company Inc.
 Master Tech Service Corp
 Matco of Texas, Inc.
 Mathis Air & Heat LLC
 McCullough Heating & Air Conditioning, Inc.
 McDaniel & Son Plumbing, Inc.
 McWilliams & Son, Inc.
 Metro Express Service LLC
 MGR Enterprises
 Michael Watkins DBA Four Seasons Air Systems
 Milestone Electric Inc.
 Mondragon Mechanical
 Montgomery HVAC Service Co, LLC
 No Sweat Experts
 North Star Heating, Air Conditioning and Refrigeration Inc.
 North Texas Air, LLC.
 Northside A/C GP, LLC
 On the Spot HVAC
 P and E Mechanical
 Peregrino Enterprises, LLC dba Daffan Mechanical
 Performance Heat and Air Inc.
 Plano Maintenance Inc.

Polansky Sales and Service Inc.
 Premier Air Service
 Professional HVAC Repair and Supply Inc.
 Putnam Air & Electric, LLC
 Quality 1 Energy Systems, Inc.
 Quigley Heating and Air Conditioning of Dallas
 Ratterree Heat & Air
 Reliant Heating & Air Conditioning, Inc.
 Republic Heating & Air Conditioning, Inc.
 Rescue Air, LLC
 Rich Construction & Service LP
 Ricki Shane Dendy
 Robert Berry
 Robert Gaston
 Rohde A/C & Heating, LLC
 S Boynton Enterprises LLC
 SA&H Western Holdings, LLC
 Samm's Heating and Air Conditioning
 San Miguel and Associates, Inc.
 Sarif LLC
 Saving Energreen Houses, LLC
 Saving Energy Solutions LLC
 Service Experts Heating & Air Conditioning
 Service Wizard, Inc.
 SOS Mechanical, LLC
 State AC, Inc. DBA Air Control
 Swan Plumbing Heating and Air Inc
 Tempo Mechanical Services
 Texas Air Doctors
 Texas Airzone LLC
 Texas Pride HVAC, LLC
 The Right Choice Heating & Air Inc.
 The Uresti Group Ltd. Co.
 Toler Air Care Today LLC
 Tom's Mechanical, Inc.
 Total Air and Heat Co
 Tri-County Air Care, LLC
 Triple A Air Conditioning
 Trudela Big Bear, LLC
 Trudela Mes LLC
 Trudela Walker, LLC
 Veterans AC & Heating
 W&B, Inc. DBA All Service Heating and Air
 Weston Company A/C & Heat
 Willard Heating and Air Conditioning Company Inc.
 Wortham A/C, Inc.
 Xtreme Air Services

Hard-to-Reach SOP

A&E HOME INSULATION
 A-Anderson Air, Inc.
 Adon Complete Property Solutions
 Aguilar's Heating & Air
 Air patrol Air Conditioning
 AirCo Ltd.
 Airco Mechanical, Ltd.
 Aire Texas Residential Services Inc.
 Airview A/C & Heating
 A-K Home Energy

Area Wide Services, Inc.
 Astar Heat and Air Inc.
 Better Than Lights
 Big D Aire LLC
 Bill Cody and Sons Plumbing Company, LLC
 Bolt Hold Co. II Service Experts
 Bon Air Service Co. Inc.
 Cole Air Conditioning Company Inc
 Complete Cool Air
 Conergy
 Conergy
 Cool Tech Mechanical
 D & R Insulation
 D T Air Conditioning & Heating Inc.
 D. Penguin Services, Inc.
 Dallas Insulation LLC
 Danco Comfort Services
 DeRocher Associates
 Dial One Johnson Plumbing, LLC
 Domani Comfort Partners LLC
 Ellis Air LLC
 ElstonAire, Inc.
 EnerChoice LLC
 Energy Audits of Texas
 Energy Efficiency Resources
 Energy Program Partners LLC
 Evenaire LLC
 Garden of Eden
 GNS Energy Efficiency
 Gregg Air LLC
 Hightower Service, Inc.
 Home Improvement Systems, Inc.
 Home Save Energy
 Houk Air Conditioning Inc.
 Hufsey Mechanical Inc, DBA One Hour A/C and Heating
 JAK Services
 Jomira LLC
 Jrosales & Associates LLC
 K&S HEATING AND AIR CONDITIONING CORP
 Keller Heating and Air Conditioning Services, LLC
 Lu and Sons
 Master Tech Service Corp
 MATHIS AIR & HEAT LLC
 Metro Express Service LLC
 North Texas Air, LLC.
 Plan B Remodeling Systems
 Polansky Sales and Service Inc.
 Putnam Air & Electric, LLC
 River Builders & Associates, LLC
 Robert Gaston
 SA&H Western Holdings, LLC
 San Miguel and Associates, Inc.
 Saving Energreen Houses, LLC
 Saving Energy Solutions LLC
 Service Experts Heating & Air Conditioning
 Texas Pride HVAC, LLC
 Total Air and Heat Co
 Veterans AC & Heating

Residential New Home Construction MTP

TRC Engineers, Inc.

Residential Load Management SOP

Ademco Inc
 Ecobee Inc.
 EnergyHub
 Reliant Energy Retail Services, LLC

Retail Products MTP

CLEAResult Consulting

Residential Solar PV SOP

1 Solar Solution, LLC
 4Q Power, Inc.
 Advent Systems INC., DBA SolarTechs
 Alba Energy LLC
 Allegiance Solar, LLC
 Arka Farms LLC
 Awake Solar, LLC
 Axis Solar
 Axiom Solar Inc.
 Byrd Electric
 CAM Solar, Inc.
 Circle L Solar
 Claud Elsom DBA North Texas Solar
 CMS Renewable
 CRSolar Energy Solutions / CR-Invent LLC
 Davis Electric Co.
 DFW Solar Electric, LLC
 Diana Edith Concepcion
 DKD Advertising
 Dynamic SLR Inc.
 Eastex Solar LLC
 Electric Distribution & Design Systems
 Elevation Solar LLC
 Empire Solar Group LLC
 Energize with sunrise LLC
 Ennis Products, Inc.
 Epic Electrical Contractors
 Escape 2 Renewables Inc.
 Expedited electrical LLC
 Freedom Solar LLC
 Good Faith Energy
 Greenbelt Solar LLC
 Greenhouse Solar LLC, DBA Infinity Solar
 GreenLife Technologies, Inc.
 HESolar LLC
 IES Residential
 Infinity Solar Solutions LLC
 James Showalter
 Kosmos Solar
 L&E Energy
 Lighthouse Solar Austin
 Longhorn Solar
 Marc Jones Construction LLC
 Native Inc.
 Nia Power LLC

Now Energy LLC
NSI Group, LLC DBA Solergy
NuWatt Energy
O3 Home Solar
Peak Power Partners
RISE power, LLC
S&H Solar & Electric, LLC
Saibagavan Commercial Investment LLC
Silver Electric and Solar
Solar CenTex LLC
Solar Electrical & Retrofit Solutions, Inc.
Solar SME, Inc.
Solarize LLC
Solartime USA LLC
Solarugreen Corporation
Solergy, LLC
Spectrum Contractors LLC
Spektra, LLC
Sun City Solar Energy-North Texas LLC
Sunfinity Solar-TX, LLC
Sunlux
Sunshine Renewable Solutions
Texas Energy Experts
Texas Solar Guys LLC
The Energy Shop, Inc.
Thompson & Son Energy Solutions LLC
Titan Solar Power TX, Inc.
Tower Association Crue
Trismart Solar
Victory Solar LLC
Wells Solar & Electrical Services LLC
West Texas Solar, LLC
Wright-Way Solar Technologies, LLC

Small Business Direct Install MTP

Lime Energy Services Company
ICF Resources LLC

Strategic Energy Management MTP¹⁵

Leidos Engineering LLC


Targeted Low-Income

EnerChoice LLC
Texas Association of Community Action Agencies,
Inc.

¹⁵ 2021 program start-up and design for the Strategic Energy Management MTP 2022 program.

ATTESTATION STATEMENT

Pursuant to P.U.C. Subst. R. 25.71(d), I attest that the information provided in this Amended 2022 Energy Efficiency Plan and Report has been reviewed internally for accuracy and I have the authority to make this report on behalf of Oncor Electric Delivery.



Darryl Nelson

May 24, 2022

Date

REDLINE VERSION

**ONCOR ELECTRIC DELIVERY
COMPANY LLC**

**2022 ENERGY EFFICIENCY PLAN
AND REPORT**

16 TEX. ADMIN CODE (TAC) §25.181 AND §25.183

AMENDED ~~APRIL~~ MAY 24¹, 2022
(REDLINE VERSION)

Project No. 52949

ENERGY EFFICIENCY REPORT

V. Historical Demand Savings Goals and Energy Targets for Previous Five Years

Table 7 documents Oncor's projected demand savings, actual demand goals and projected energy savings for the previous five years (2017-2021) calculated in accordance with 16 TAC §25.181.

Table 7: Historical Demand Savings Goals and Energy Targets

Calendar Year	Actual Demand Goal (MW at Meter)*	Projected Savings (MW at Meter)	Projected Energy Savings (MWh at Meter)	Reported & Verified Savings (MW at Meter)*	Reported & Verified Energy Savings (MWh at Meter)
2021⁶	94.5	165.0	254,533	209.9	309,859.70
2020⁷	69.4	163.3	248,055	199.2	295,496
2019⁸	69.4	161.4	218,630	167.4	243,152
2018⁹	69.4	155.3	206,072	172.4	218,304
2017¹⁰	69.4	145.8	208,513	155.2	170,124

* The 2021 MW savings at the Source is 222.24 (209.9 MW / (1 - .05561 line loss)). The 2021 demand goal MW at the source is 100.1 (94.5 MW / (1 - .05561 line loss)). The line loss was reported in Oncor's 2021 EECRF (Docket No. ~~5187252178~~ 52178 – WP/MAT/4).

⁶ Projected MW Savings and Projected Energy Savings as reported in the 2021 Energy Efficiency Plan & Report (EEPR) filed in April of 2021 under Project No. ~~5187252178~~ 52178. Actual Demand Goal as discussed in Tables 1 & 4.

⁷ Projected MW Savings and Projected Energy Savings as reported in the 2020 Energy Efficiency Plan & Report (EEPR) filed in April of 2020 (and amended on May 18, 2020) under Project No. 50666. Actual Demand Goal as discussed in Tables 1 & 4.

⁸ Projected MW Savings and Projected Energy Savings as reported in the 2019 Energy Efficiency Plan & Report (EEPR) filed in April of 2019 (and amended on May 24, 2019) under Project No. 49297. Actual Demand Goal as discussed in Tables 1 & 4.

⁹ Projected MW Savings and Projected Energy Savings as reported in the 2018 Energy Efficiency Plan & Report (EEPR) filed in March of 2018 under Project No. 48146. Actual Demand Goal as discussed in Tables 1 & 4.

¹⁰ Projected MW Savings and Projected Energy Savings as reported in the 2017 Energy Efficiency Plan & Report (EEPR) filed in April of 2017 under Project No. 46907. Actual Demand Goal as discussed in Tables 1 & 4.

VI. Projected, Reported and Verified Demand and Energy Savings

Table 8: Projected versus Reported and Verified Savings for 2021 and 2020¹¹ (at Meter)

2021	Projected Savings		Reported and Verified Savings	
Customer Class and Program	kW	kWh	kW	kWh
Commercial	78,536	110,618,913	105,949 <u>105,960</u>	124,913,927 <u>124,899,425</u>
Commercial SOP	12,562	67,009,760	18,987 <u>19,002</u>	84,003,113 <u>84,006,948</u>
Commercial Load Management SOP ¹²	60,000	180,000	78,125	234,374
Solar PV SOP	1,534	4,979,022	2,126	6,813,109
Small Business Direct Install MTP	2,610	15,698,285	754 <u>750</u>	3,422,489 <u>3,404,152</u>
Retail Products MTP	891	4,003,671	5,915	30,026,196
Retro-commissioning MTP	0	13,000,000	0	330,162
Commercial HVAC Distributor MTP	939	5,748,175	42	84,484
Residential	69,709	119,271,763	85,185 <u>85,183</u>	158,051,304 <u>158,049,617</u>
Home Energy Efficiency SOP	20,873	35,602,085	18,514 <u>18,512</u>	35,617,062 <u>35,615,375</u>
Solar PV SOP	1,015	3,409,927	1,460	5,003,812
Residential Load Management SOP	30,000	90,000	40,739	122,217
Retail Products MTP	16,921	76,069,751	23,496	116,059,268
Residential New Home Construction MTP	900	4,100,000	976	1,248,945
Hard-to-Reach	16,733	24,642,075	18,751 <u>18,753</u>	26,904,569 <u>26,909,513</u>
Hard-to-Reach SOP	14,021	20,631,773	15,500 <u>15,502</u>	20,875,425 <u>20,879,661</u>
Targeted Weatherization LI SOP	2,712	4,010,302	3,251	6,029,144 <u>6,029,852</u>
Total Annual Savings Goals	164,978	254,532,751	209,885 <u>209,896</u>	309,869,800 <u>309,858,555</u>

¹¹ Projected Savings totals for 2021 and 2020 from Table 7. Reported Savings may not add due to rounding.

¹² Actual and evaluated program performance is 103,180 kW and 309,539 kWh. Oncor only claims kW and kWh savings up to the amount of the incentive paid to participating service providers.

VII. Historical Program Expenditures

This section documents Oncor's incentive and administration expenditures for the previous five years (2017-2021) broken out by program for each customer class.

Table 9: Historical Program Incentive and Administrative Expenditures for 2016 through 2020

	2021		2020		2019		2018		2017	
	Incentive (\$)	Admin (\$)	Incentive (\$)	Admin (\$)	Incentive (\$)	Admin (\$)	Incentive (\$)	Admin (\$)	Incentive (\$)	Admin (\$)
Commercial	\$17,344,746	\$2,328,489	\$16,378,224	\$2,151,317	\$17,737,374	\$2,618,203	\$18,551,494	\$2,810,365	\$16,421,430	\$2,258,138
Solar PV SOP	\$2,513,874	\$296,523	\$2,680,757	\$309,811	\$2,751,931	\$348,614	\$3,199,284	\$404,539	\$2,016,566	\$296,888
Commercial SOP (Custom)	NA	NA	NA	NA	\$304,852	\$78,986	\$1,220,715	\$333,133	\$2,219,776	\$274,463
Commercial Load Management SOP	\$2,500,000	\$219,270	\$2,625,000	\$233,444	\$2,280,000	\$219,548	\$2,264,382	\$221,156	\$2,335,033	\$206,441
Retail Products MTP	\$261,824	\$20,218	\$215,648	\$17,004	\$146,966	\$13,412	\$87,693	\$7,681	NA	NA
Small Business Direct Install MTP	\$1,069,470	\$91,657	\$1,304,087	\$106,960	\$1,880,379	\$179,987	\$3,407,414	\$281,331	\$1,640,121	\$136,407
Healthcare MTP	NA	NA	NA	NA	NA	NA	NA	NA	\$363,758	\$26,348
Retro-commissioning MTP	\$39,898	\$33,090	\$128,413	\$35,325	\$153,864	\$38,835	NA	NA	NA	NA
Commercial SOP	\$10,722,024	\$1,632,640	\$9,206,772	\$1,433,891	\$10,219,382	\$1,738,821	\$8,372,006	\$1,562,525	\$7,846,176	\$1,317,591
Commercial HVAC Distributor MTP	\$237,657	\$35,090	\$217,547	\$14,882	NA	NA	NA	NA	NA	NA
Residential	\$16,264,512	\$1,725,419	\$16,235,042	\$1,683,150	\$14,408,317	\$1,719,366	\$14,255,973	\$1,819,899	\$15,618,050	\$1,900,301
Home Energy Efficiency SOP	\$7,734,703	\$918,967	\$8,729,508	\$974,663	\$8,436,929	\$1,044,545	\$9,786,238	\$1,270,240	\$12,111,569	\$1,451,784
Solar PV SOP	\$1,797,902	\$265,184	\$1,899,479	\$264,504	\$2,007,054	\$312,976	\$1,487,569	\$283,920	\$2,540,451	\$359,259
Residential Load Management SOP	\$1,303,638	\$107,389	\$1,225,000	\$101,503	\$1,118,156	\$102,917	\$1,316,000	\$119,803	\$966,030	\$89,258
Retail Products MTP	\$4,974,647	\$384,143	\$4,381,055	\$342,480	\$2,846,178	\$258,928	\$1,666,166	\$145,936	NA	NA
Residential New Home Construction MTP	\$453,622	\$49,736	NA	NA	NA	NA	NA	NA	NA	NA
Hard-to-Reach	\$11,022,849	\$1,151,840	\$11,134,111	\$1,137,527	\$10,467,278	\$1,163,385	\$9,162,979	\$1,172,244	\$11,048,655	\$1,264,640
Hard-to-Reach SOP	\$6,378,548	\$708,926	\$6,265,399	\$684,349	\$6,038,597	\$753,931	\$4,685,428	\$753,177	\$6,019,635	\$847,106
Targeted Weatherization LI SOP	\$4,644,301	\$442,914	\$4,868,712	\$453,178	\$4,428,681	\$409,454	\$4,477,551	\$419,067	\$5,029,020	\$417,534
Total Program Expenditures	\$44,632,108	\$5,205,747	\$43,747,377	\$4,971,994	\$42,612,969	\$5,500,954	\$41,970,446	\$5,802,508	\$43,088,135	\$5,423,079

Table 10: Program Funding for Calendar Year 2021

Programs	Number of Customer Meters	Total Projected Budget ¹⁴ (\$)	Actual Funds Expended (Incentives) (\$)	Actual Funds Expended (Admin)* (\$)	Total Funds Expended (\$)	Funds Committed (Not Expended) (\$)	Funds Remaining (Not Committed) (\$)
Commercial	1,183	19,479,096	17,344,746	2,328,489	19,673,235	3,210,399	(3,404,538)
Solar PV SOP	54	2,323,820	2,513,874	296,523	2,810,397	0	(486,577)
Commercial SOP	755	8,405,181	10,722,024 ³	1,632,640 ⁴	12,354,664	3,210,399	(7,159,882)
Commercial Load Management SOP	264	2,394,000	2,500,000	219,270	2,719,270	0	(325,270)
Retail Products MTP	NAV	240,845	261,824	20,218	282,042	0	(41,197)
Small Business Direct Install MTP	101	3,453,630	1,069,470	91,657	1,161,127	0	2,292,503
Retro-commissioning MTP	1	1,164,800	39,898	33,090	72,988	0	1,091,812
Commercial HVAC Distributor MTP	8	1,496,820	237,657	35,090	272,747	0	1,224,073
Residential	41,518	19,237,075	16,264,512	1,725,419	17,989,931	0	1,247,144
Home Energy Efficiency SOP	8,116	10,434,600	7,734,703	918,967	8,653,670	0	1,780,930
Solar PV SOP	325	1,539,920	1,797,902	265,184	2,063,086	0	(523,166)
Residential Load Management SOP	33,077	1,186,500	1,303,638	107,389	1,411,027	0	(224,527)
Retail Products MTP	NAV	4,576,055	4,974,647	384,143	5,358,790	0	(782,735)
Residential New Home Construction MTP	378	1,500,000	453,622	49,736	503,358	0	996,642
Hard-to-Reach	12,872	12,754,350	11,022,849	1,151,840	12,174,689	0	579,661
Hard-to-Reach SOP	11,739	7,554,350	6,378,548	708,926	7,087,474	0	466,876
Targeted Low-Income SOP	1,133	5,200,000	4,644,301	442,914	5,087,215	0	112,785
Research & Development	NA	150,000	0	188,039	188,039	0	(38,039)
EM&V**	NA	718,490	0	718,490	718,490	0	0
Total	55,573	52,339,011	44,632,108⁷	6,112,276⁷	50,744,384	3,210,399	(1,615,772)

* Administration funds include \$12,048 of Rate Case Expenses approved in Docket No. 5187252178.

** EM&V costs shown are actual booked costs for 2021. For purposes of cost-effectiveness and bonus calculations, \$733,805 is used per TetraTech's 2021 EM&V cost allocation.

¹⁴ Projected Budget taken from the EEPR filed in April 2021 under Project No. 5187252178

Appendix A: Demand and Energy Reduction by County

	Commercial Load Management		Commercial Midstream MTP		Commercial SOP		Hard to Reach SOP		Home Energy Efficiency SOP	
County	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh
ANDERSON	62.89	188.7								
ANDREWS										
ANGELINA	183.54	550.6			32.00	266,152.9			181.54	344,352.0
ARCHER									13.58	23,987.0
BASTROP									2.03	5,384.3
BELL	3,369.94	10,109.7			360.47	1,571,458.4	548.99	820,600.6	358.97	706,317.6
BROWN					4.50	11,624.6				
CHEROKEE					6.50	54,100.0	258.26	467,498.4	11.32	20,790.5
CLAY									1.28	2,764.1
COLLIN	17,528.81	52,586.5	6.52	29,012.6	2,054.47	9,395,315.5	1,289.97	1,706,123.6	3,059.76	5,782,255.2
COMANCHE										
CONCHO										
COOKE	15.28	45.8			2.03	25,951.6			14.78	28,856.5
CORYELL					14.58	85,462.8	14.01	24,098.6	53.57	100,051.7
CRANE										
DALLAS	25,373.27	76,119.5	21.46	42,028.2	8,874.00	32,848,511.9	8,425.93	11,533,725.4	4,405.56	8,333,049.9
DAWSON										
DELTA										
DENTON	767.08	2,301.4	13.83	13,442.7	477.88	2,397,920.3	23.20	28,241.8	651.49	1,260,252.7
EASTLAND	4.33	13.0							60.37	119,700.2
ECTOR	148.79	446.4			2.16	12,110.8			32.09	62,451.9
ELLIS	139.66	418.9			263.98	1,761,056.0	841.22	1,384,500.7	329.00	664,822.8
ERATH									0.83	2,876.3
FALLS									1.02	1,671.4
FANNIN									1.22	2,568.2
FREESTONE									63.44	118,589.5
GLASSCOCK										
GLEN HEIGHTS										
GRAYSON	477.58	1,432.7			121.01	654,594.6	3.23	5,940.0	16.76	35,475.4
HENDERSON	69.69	209.1			15.23	61,270.9			83.41	162,566.4
HILL					1.30	7,332.0	0.26	521.7	1.72	3,686.7
HOOD									22.18	54,525.3
HOPKINS					104.37	460,774.7	2.98	5,257.6		
HOUSTON	1,077.71	3,233.2							17.60	33,266.4
HOWARD	19.07	57.2			1.52	8,566.5			7.52	13,991.2
HUNT					9.86	49,216.6	6.29	11,886.2	2.20	4,045.2
JACK									4.99	9,860.5

Appendix A: Demand and Energy Reduction by County

	Commercial Load Management		Commercial Midstream MTP		Commercial SOP		Hard to Reach SOP		Home Energy Efficiency SOP	
County	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh
JOHNSON	745.89	2,237.6			119.60	967,820.0	1.33	1,608.1	152.55	314,235.9
KAUFMAN	116.66	350.0			1,059.72	4,677,813.3	0.89	1,646.8	62.05	127,918.7
LAMAR	569.33	1,707.9			51.04	263,003.1				
LAMPASAS							0.58	1,121.1		
LEON					4.38	24,630.9				
LIMESTONE									30.50	54,548.2
MARTIN										
MCCULLOCH										
MCLENNAN	4,094.56	12,283.5			208.62	908,751.1	346.08	633,427.2	590.53	1,150,710.4
MIDLAND	857.54	2,572.6			207.13	913,022.2			53.34	98,505.7
MILAM									149.95	210,641.3
MITCHELL										
NACOGDOCHES					135.63	641,543.6			74.36	141,835.8
NAVARRO	3,169.76	9,509.3			16.39	92,047.4			19.00	33,547.4
NOLAN	5.66	17.0								
PALO PINTO	62.71	188.1							8.02	16,684.5
PARKER					0.98	5,505.3	1.87	3,456.8	168.62	339,164.2
PECOS										
RED RIVER										
ROCKWALL	687.90	2,063.7			211.86	954,920.5	1.91	2,958.2	148.53	294,529.3
RUSK	389.50	1,168.6								
SAN SABA										
SCURRY	175.82	527.5								
SMITH	115.18	345.5			201.23	957,004.0			26.56	53,473.6
STEPHENS									17.46	32,230.6
TARRANT	16,504.87	49,514.5			3,806.22	20,838,844.5	3,734.61	4,247,048.3	6,409.63	12,553,336.6
TRAVIS	43.96	131.9			73.25	421,005.7			129.55	245,420.2
TX										
VAN ZANDT					1.15	6,302.1			2.07	7,611.2
WARD										
WICHITA	352.76	1,058.2			54.64	267,125.7			151.69	286,920.2
WILLIAMSON	886.16	2,658.3			338.51	1,573,178.4			902.31	1,718,603.0
WINKLER										
WISE	50.26	150.8			166.14	823,010.2			17.45	37,299.0
YOUNG	58.91	176.7								
Total by Program	78,125.07	234,374.4	41.81	84,483.5	19,002.35	84,006,948.1	15,501.61	20,879,661.1	18,512.40	35,615,374.7

Appendix A: Demand and Energy Reduction by County

	Residential Load Management		Residential New Home Construction MTP		Retro-commissioning MTP		Small Business Direct Install MTP		Solar PV MTP (Residential)	
County	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh
ANDERSON	32.40	96.9								
ANDREWS	25.83	77.3								
ANGELINA	181.15	544.4					9.62	41,533.0	7.82	19,069.2
ARCHER	13.39	40.1					1.61	12,173.8	15.99	56,984.5
BASTROP	41.14	123.6	20.82	45,660.9					4.44	14,643.4
BELL	1,755.26	5,265.5	3.89	9,237.8			21.12	113,949.1	119.06	446,421.9
BROWN	48.31	145.0					1.77	12,326.4	1.59	6,338.3
CHEROKEE	52.16	156.5					41.21	130,325.7	12.83	32,524.4
CLAY	15.23	45.6							5.92	21,955.4
COLLIN	5,572.64	16,719.4	265.35	306,041.7					224.25	766,519.7
COMANCHE	14.65	44.0					3.80	31,414.6		
CONCHO	0.71	2.1								
COOKE	10.11	30.4					1.27	7,199.5		
CORYELL	200.89	603.1							6.80	21,781.6
CRANE	0.02	0.1								
DALLAS	10,655.20	31,965.7	148.85	159,680.7	0.00	330,162.0	61.11	242,871.5	199.26	694,607.7
DAWSON	18.22	54.6								
DELTA	-0.48	-1.4								
DENTON	1,818.41	5,455.3	101.50	107,587.3			0.99	3,542.9	42.36	156,007.4
EASTLAND	14.62	43.8								
ECTOR	639.67	1,919.0							54.63	198,145.9
ELLIS	1,011.34	3,032.9	16.79	30,062.8			49.56	301,039.2	51.83	167,966.4
ERATH	15.29	46.2					1.69	6,843.1		
FALLS	4.81	14.3					1.66	6,125.0		
FANNIN	22.61	67.7	1.72	4,346.9						
FREESTONE	28.72	86.2								
GLASSCOCK	2.46	7.4								
GLEN HEIGHTS	0.69	2.1								
GRAYSON	269.23	808.3					28.55	121,347.8	5.38	11,871.1
HENDERSON	115.77	347.6							5.80	19,451.6
HILL	36.50	109.5							1.97	7,519.8
HOOD	48.16	145.0								
HOPKINS	40.22	120.9					14.72	80,996.3	37.01	133,296.2
HOUSTON	4.08	12.3								
HOWARD	43.63	130.9								
HUNT	40.99	123.0							3.38	7,989.1
JACK	2.64	7.9					97.39	404,880.1		

Appendix A: Demand and Energy Reduction by County

	Residential Load Management		Residential New Home Construction MTP		Retro-commissioning MTP		Small Business Direct Install MTP		Solar PV MTP (Residential)	
County	kW	kWh	kW	kWh	kW	kWh	kW	kWh	kW	kWh
JOHNSON	502.36	1,507.2					12.40	51,123.8	4.24	23,109.1
KAUFMAN	260.12	780.2							18.63	55,738.1
LAMAR	60.18	180.6					0.82	3,325.4		
LAMPASAS	10.13	30.4								
LEON	3.69	11.0								
LIMESTONE	13.49	40.5								
MARTIN	4.17	12.6								
MCCULLOCH	-1.50	-4.6								
MCLENNAN	693.88	2,081.6					55.25	317,157.4		
MIDLAND	841.50	2,523.7					4.00	17,288.0		
MILAM	19.24	57.8								
MITCHELL	7.15	21.5								
NACOGDOCHES	69.86	209.3							10.30	38,846.3
NAVARRO	62.91	189.0					1.96	7,622.0		
NOLAN	22.56	67.6								
PALO PINTO	32.19	96.4					1.77	7,481.3		
PARKER	199.16	596.8							18.34	64,491.9
PECOS										
RED RIVER	1.34	4.0								
ROCKWALL	632.03	1,895.9	93.66	109,057.7					21.89	58,846.2
RUSK	-0.39	-1.2								
SAN SABA	0.73	2.2								
SCURRY	24.88	74.8								
SMITH	688.33	2,063.7					51.26	237,412.5	9.74	32,194.0
STEPHENS	15.67	47.0								
TARRANT	10,608.77	31,827.2	201.31	233,262.9			54.88	227,202.0	238.25	815,935.7
TRAVIS	565.93	1,698.5	14.22	26,123.9			1.97	7,131.0	96.12	334,390.1
TX										
VAN ZANDT	22.88	68.8							10.39	31,190.1
WARD	43.79	131.3							3.83	14,979.6
WICHITA	379.95	1,139.3					192.69	847,666.1	50.13	149,770.5
WILLIAMSON	2,078.37	6,235.1	108.01	217,882.4			5.68	34,561.5	177.82	601,227.2
WINKLER	0.11	0.3								
WISE	54.72	164.3					23.43	101,172.8		
YOUNG	23.86	71.2					7.80	28,439.9		
Total by Program	40,738.73	122,217.2	976.12	1,248,945.0	0.00	330,162.0	749.98	3,404,151.7	1,460.00	5,003,812.4

Appendix A: Demand and Energy Reduction by County

	Solar PV SOP (Commercial)		Targeted LIW		Retail Products Program MTP		Total kW by County*	Total kWh by County*
County	kW	kWh	kW	kWh	kW	kWh		
ANDERSON	131.13	421,508.3	139.12	260,538.7		5,024.0	365.54	687,356.6
ANDREWS			1.56	2,676.2		5,024.0	27.39	7,777.5
ANGELINA						17,584.0	595.67	689,786.1
ARCHER							44.57	93,185.4
BASTROP						6,280.0	68.43	72,092.2
BELL			140.82	245,346.6	1,069.69	5,299,342.6	7,748.21	9,228,049.8
BROWN			145.43	283,232.2		3,768.0	201.60	317,434.5
CHEROKEE	23.18	74,250.3				7,536.0	405.46	787,181.8
CLAY						1,256.0	22.43	26,021.1
COLLIN	177.02	495,242.0	5.08	8,269.0	4,852.21	24,063,061.9	35,036.08	42,621,147.1
COMANCHE						1,256.0	18.45	32,714.6
CONCHO							0.71	2.1
COOKE	10.59	29,912.9	14.61	26,732.7		1,256.0	68.67	119,985.4
CORYELL			4.04	7,175.6		8,792.0	293.89	247,965.4
CRANE							0.02	0.1
DALLAS	442.71	1,374,638.4	1,526.07	2,813,005.5	8,238.38	41,044,499.3	68,371.80	99,524,865.7
DAWSON			9.23	12,425.7		2,512.0	27.45	14,992.3
DELTA						1,256.0	-0.48	1,254.6
DENTON			9.78	17,245.1	522.58	2,736,109.1	4,429.10	6,728,106.0
EASTLAND						1,256.0	79.32	121,013.0
ECTOR	21.22	93,520.4	3.89	4,717.5	481.63	2,348,115.3	1,384.08	2,721,427.2
ELLIS	91.28	337,997.0			387.53	1,926,228.8	3,182.19	6,577,125.5
ERATH						3,768.0	17.81	13,533.6
FALLS			0.59	761.4			8.08	8,572.1
FANNIN			5.31	9,130.3		7,536.0	30.86	23,649.1
FREESTONE			5.44	9,680.3		6,280.0	97.60	134,636.0
GLASSCOCK							2.46	7.4
GLEN HEIGHTS							0.69	2.1
GRAYSON			26.79	40,301.9		40,192.0	948.53	911,963.8
HENDERSON						17,584.0	289.90	261,429.6
HILL					33.55	162,057.1	75.30	181,226.8
HOOD						2,512.0	70.34	57,182.3
HOPKINS	205.28	632,943.3	3.89	6,914.8	96.05	461,869.0	504.52	1,782,172.8
HOUSTON							1,099.39	36,511.9
HOWARD			67.70	130,576.4	66.48	319,469.7	205.92	472,791.9
HUNT			0.01	41.0	21.44	110,110.6	84.17	183,411.7
JACK							105.02	414,748.5

Appendix A: Demand and Energy Reduction by County

	Solar PV SOP (Commercial)		Targeted LIW		Retail Products Program MTP		Total kW by County*	Total kWh by County*
County	kW	kWh	kW	kWh	kW	kWh		
JOHNSON	33.08	98,743.9			511.90	2,477,547.5	2,083.35	3,937,933.1
KAUFMAN	58.52	196,549.8			315.01	1,529,867.7	1,891.60	6,590,664.6
LAMAR			18.74	29,926.2		1,256.0	700.11	299,399.2
LAMPASAS							10.71	1,151.5
LEON							8.07	24,641.9
LIMESTONE						2,512.0	43.99	57,100.7
MARTIN							4.17	12.6
MCCULLOCH						1,256.0	-1.50	1,251.4
MCLENNAN	10.49	31,458.2	548.02	1,091,980.1	788.54	3,872,216.7	7,335.97	8,020,066.2
MIDLAND			1.67	1,965.6	476.04	2,348,918.1	2,441.22	3,384,795.9
MILAM	21.19	96,060.1	3.13	4,055.8		1,256.0	193.51	312,071.0
MITCHELL							7.15	21.5
NACOGDOCHES			90.87	161,783.7		18,840.0	381.02	1,003,058.7
NAVARRO	67.20	224,280.8			172.31	829,306.5	3,509.53	1,196,502.4
NOLAN			0.50	526.5	35.68	170,794.0	64.40	171,405.1
PALO PINTO	70.84	212,921.6			33.46	161,816.9	208.99	399,188.8
PARKER						22,608.0	388.97	435,823.0
PECOS						1,256.0		
RED RIVER			0.66	647.3			2.00	651.3
ROCKWALL			5.49	9,944.5	1,014.23	4,919,101.2	2,817.50	6,353,317.2
RUSK			24.88	44,256.0			413.99	45,423.4
SAN SABA					0.00	1,256.0	0.73	1,258.2
SCURRY							200.70	602.3
SMITH	18.03	60,024.5			749.89	3,677,567.7	1,860.22	5,020,085.5
STEPHENS	39.45	117,569.7				1,256.0	72.58	151,103.3
TARRANT	489.98	1,599,254.6	344.45	623,940.2	7,059.68	34,950,627.2	49,452.65	76,170,793.7
TRAVIS					289.45	1,537,809.1	1,214.45	2,573,710.4
TX					1,076.91	5,172,697.2	1,076.91	5,172,697.2
VAN ZANDT	35.67	99,100.3				1,256.0	72.16	145,528.5
WARD							47.62	15,110.9
WICHITA	91.62	328,905.2	103.11	182,054.9	425.53	2,087,945.4	1,802.12	4,152,585.5
WILLIAMSON	37.07	120,743.0			693.11	3,672,401.6	5,227.04	7,947,490.5
WINKLER							0.11	0.3
WISE	50.37	167,484.2				7,536.0	362.37	1,136,817.3
YOUNG						5,024.0	90.57	33,711.8
Total by Program	2,125.92	6,813,108.5	3,250.88	6,029,851.7	29,411.28	146,085,464.2	209,896.15	309,858,554.5